

EMPOWERME

2016 - 2017: EQUATING REPORT



2016 - 2017 eMPowerME

Equating Report

The purpose of this document is to summarize the equating results obtained from Measured Progress for eMPowerME. Presented in this report are various program summary statistics and specific results related to the equating study.

The results of this report are organized as follows:

1. Aggregate Results

- 1. Percentage of Students by Achievement Level Categories**
- 2. Raw Scores Associated with Cutpoints**
- 3. Calibration Report**
- 4. Equating Item Summary Statistics**
- 5. Summary of Psychometric QC Activities**

2. Grade Subject Results

- 1. A/A, B/B, Delta, Test Characteristic Curve, Test Information Function, and Cumulative Scale Score Distribution Plots**
- 2. Lookup Tables**
- 3. Cumulative Scale Score Distribution Tables**
- 4. Rescore Analysis Results**
- 5. Tabled Delta Analysis Results**
- 6. Tabled B/B Analysis Results**
- 7. Final Item Parameters**
- 8. Fit Plots of Watch list Items**

The final results of this equating will be included as part of the 2016 - 2017 eMPowerME Technical Manual. If requested, Measured Progress will distribute and/or present this report at the next eMPowerME.

Section 1.1

Percentage of Students by Achievement Level Categories

Table 1.1.1
 Percentage of Students by Achievement Level Categories
 English Language Arts

Grade	Year	Count	1	2	3	4	3&4	Delta	Ave. SS
3	2017	12897	23	28	27	21	49	0.7	358.2
	2016	13096	24	28	27	20	48		358.2
4	2017	13221	23	25	31	20	51	-1.0	460.3
	2016	12876	25	23	32	21	52		459.5
5	2017	13004	22	23	37	19	55	3.3	561.0
	2016	13111	23	25	35	17	52		559.7
6	2017	13171	17	33	34	16	50	3.3	658.9
	2016	13006	17	37	32	15	46		658.3
7	2017	13208	15	33	36	16	52	4.8	760.4
	2016	12805	19	34	34	14	47		758.0
8	2017	12877	16	33	38	13	52	3.2	859.8
	2016	12876	15	36	37	12	48		858.9

Table 1.1.2
 Percentage of Students by Achievement Level Categories
 Mathematics

Grade	Year	Count	1	2	3	4	3&4	Delta	Ave. SS
3	2017	12953	23	31	36	10	46	-2.6	357.2
	2016	13143	23	29	38	10	48		357.3
4	2017	13254	18	39	33	11	43	3.7	456.5
	2016	12931	20	40	28	11	40		454.8
5	2017	13065	21	44	25	10	36	0.3	553.3
	2016	13140	21	44	26	9	35		552.0
6	2017	13236	29	38	23	10	33	-0.4	652.4
	2016	13050	31	36	23	10	33		652.2
7	2017	13266	27	32	34	7	41	1.3	754.4
	2016	12826	31	29	31	9	40		752.9
8	2017	12929	31	34	26	9	35	-0.2	853.6
	2016	12898	34	31	25	10	35		853.2

Section 1.2

Raw Scores Associated with Cut points

Table 1.2.1
Raw Scores Associated with Cut points

Subject	Grade	Cut Point	2016 Actual	2017 Actual	2017 Prediction
English Language Arts	3	1–2	20	20	20
		2–3	31	31	31
		3–4	42	41	41
English Language Arts	4	1–2	24	21	21
		2–3	32	30	29
		3–4	43	41	41
English Language Arts	5	1–2	22	22	22
		2–3	31	31	31
		3–4	45	44	43
English Language Arts	6	1–2	24	23	23
		2–3	38	36	36
		3–4	48	47	47
English Language Arts	7	1–2	20	20	21
		2–3	32	33	33
		3–4	46	46	47
English Language Arts	8	1–2	24	20	21
		2–3	39	34	34
		3–4	51	48	48
Mathematics	3	1–2	13	16	15
		2–3	20	25	23
		3–4	32	38	36
Mathematics	4	1–2	12	13	13
		2–3	20	22	22
		3–4	30	33	34
Mathematics	5	1–2	11	12	12
		2–3	20	23	21
		3–4	31	34	33
Mathematics	6	1–2	16	17	17
		2–3	23	27	26
		3–4	30	36	35
Mathematics	7	1–2	12	16	15
		2–3	17	25	24
		3–4	27	39	37
Mathematics	8	1–2	16	17	17
		2–3	23	24	23
		3–4	31	34	33

Section 1.3

Calibration Report

Calibration Report—Executive Summary

PARSCALE 4.1 was used for all analyses. All command files were set up in a way that all general settings were identical to last year. For example, the calibration statement reads:

```
CAL GRADED,LOGISTIC,CYCLE=(150,1,1,1,1),TPRIOR,SPRIOR,GPRIOR;
```

Thus, a 3PLM was used for all MC items, and a Graded Response Model was specified for the polytomous items. The logistic version of the IRT models was used, and default priors were used for all parameter estimates. Each item occupied its own unique block in the command file, and for most items initial guessing parameters were set to 0.25.

The resulting parameters demonstrated excellent model fit. In particular, the largest change in parameter values (from one iteration to the next) was decreasing and tended to flatten out towards the end of the calibration process. The number of Newton cycles to conversion for each grade/content for the initial calibrations are listed in the following table:

Table 1.3.1
Number of Cycles to Convergence

Subject	Grade	Initial Cycles
English Language Arts	Grade 3	66
English Language Arts	Grade 4	60
English Language Arts	Grade 5	41
English Language Arts	Grade 6	91
English Language Arts	Grade 7	39
English Language Arts	Grade 8	37
Mathematics	Grade 3	43
Mathematics	Grade 4	107
Mathematics	Grade 5	63
Mathematics	Grade 6	83
Mathematics	Grade 7	64
Mathematics	Grade 8	50

For some items the guessing parameter was poorly estimated. This is not at all unusual as difficulty in estimating the c-parameter has been well documented in the psychometric literature. This often happens when item discrimination is low or the items are particularly easy. After carefully studying these items we found that fixing the lower asymptote (for example to a value of 0.00) resulted in stable and reasonable estimates for both the a and b parameters (relative to CTT statistics). This technique also produced item parameters that resulted in excellent model fit (comparing theoretical ICCs to observed ICCs).

Three methods of evaluating the suitability of the equating items were used: the delta analysis, the b/b analysis and the rescore analysis. As a result of all three analyses very few items were removed from the equating analysis. Results such as this are very common particularly, given the number of grade/content combinations, and the number and types of items in the program. Results from these analyses are included in Section II of this report.

Items flagged by the delta, b/b, or rescore analyses, or any item that required intervention during the calibration process, were compiled and placed in our item watch list, which includes the final actions taken on these items. The final watch list is presented in the following table:

Table 1.3.2
Final Items Watch List

Subject	Grade	ItemID	Reason	Action
English Language Arts	3	410639	delta analysis	removed from equating
English Language Arts	3	418629	c-parameter	set c = 0
English Language Arts	3	421651	c-parameter	set c = 0
English Language Arts	3	421676	c-parameter	set c = 0
English Language Arts	4	130675A	c-parameter	set c = 0
English Language Arts	4	130706A	c-parameter	set c = 0
English Language Arts	4	130712A	c-parameter	set c = 0
English Language Arts	4	410911	b/b analysis	removed from equating
English Language Arts	4	420785	c-parameter	set c = 0
English Language Arts	5	129011A	c-parameter	set c = 0
English Language Arts	5	401443	c-parameter	set c = 0
English Language Arts	5	402284	c-parameter	set c = 0
English Language Arts	5	419298	b/b analysis	removed from equating
English Language Arts	5	419298	delta analysis	removed from equating
English Language Arts	5	419302	c-parameter	set c = 0
English Language Arts	6	129252A	c-parameter	set c = 0
English Language Arts	6	129379A	b/b analysis	removed from equating
English Language Arts	6	401886	c-parameter	set c = 0
English Language Arts	6	402013	c-parameter	set c = 0
English Language Arts	6	419741	c-parameter	set c = 0
English Language Arts	6	420260	c-parameter	set c = 0
English Language Arts	7	401802	c-parameter	set c = 0
English Language Arts	7	401814	c-parameter	set c = 0
English Language Arts	7	402696	c-parameter	set c = 0
English Language Arts	7	407741	delta analysis	removed from equating
English Language Arts	7	407760	c-parameter	set c = 0
English Language Arts	7	409628	c-parameter	set c = 0
English Language Arts	7	416739	rescore analysis	removed from equating
English Language Arts	8	131192A	c-parameter	set c = 0
English Language Arts	8	131194A	a/a analysis	removed from equating
English Language Arts	8	402111	c-parameter	set c = 0
English Language Arts	8	402116	c-parameter	set c = 0
English Language Arts	8	402125	c-parameter	set c = 0
English Language Arts	8	420872	c-parameter	set c = 0
English Language Arts	8	420905	c-parameter	set c = 0
English Language Arts	8	420929	a/a analysis	removed from equating
English Language Arts	8	420970	c-parameter	set c = 0
Mathematics	3	124364A	delta analysis	removed from equating
Mathematics	3	412628	c-parameter	set c = 0
Mathematics	4	400778	c-parameter	set c = 0
Mathematics	5	400300	c-parameter	set c = 0.2

Table 1.3.2 (continued)

Final Items Watch List

Subject	Grade	ItemID	Reason	Action
Mathematics	6	127166A	c-parameter	set c = 0
Mathematics	6	408317	delta analysis	removed from equating
Mathematics	6	412431	delta analysis	removed from equating
Mathematics	6	413996	b/b analysis	removed from equating
Mathematics	6	551474A	a-parameter	a set to initial
Mathematics	7	124510A	b/b analysis	removed from equating
Mathematics	7	408567	a/a analysis	removed from equating
Mathematics	8	400191	c-parameter	set c = 0.2
Mathematics	8	400345	c-parameter	set c = 0
Mathematics	8	400780	a-parameter	a set to initial
Mathematics	8	400780	c-parameter	set c = 0.1
Mathematics	8	401024	c-parameter	set c = 0.25
Mathematics	8	408518	c-parameter	set c = 0
Mathematics	8	408518	b/b analysis	removed from equating
Mathematics	8	408795	c-parameter	set c = 0
Mathematics	8	412756	delta analysis	removed from equating
Mathematics	8	413229	c-parameter	set c = 0
Mathematics	8	413335	c-parameter	set c = 0

The Stocking and Lord procedure was used to transform parameter estimates onto the operational scale. This procedure results in constants which were applied to the resulting IRT parameters for each grade/content. These transformation constants were found using the STUIRT program which can be found at the CASMA website: <http://www.education.uiowa.edu/casma/>. The Stocking & Lord transformation constants that were used in the equating process are listed in the following table:

Table 1.3.3
Stocking and Lord Constants

Subject	Grade	Slope	Intercept
English Language Arts	3	0.97	-0.01
English Language Arts	4	0.97	0.04
English Language Arts	5	1.02	0.09
English Language Arts	6	0.99	0.04
English Language Arts	7	0.98	0.15
English Language Arts	8	1.01	0.09
Mathematics	3	1.03	-0.03
Mathematics	4	0.94	0.08
Mathematics	5	1.00	0.03
Mathematics	6	1.01	-0.07
Mathematics	7	1.00	0.01
Mathematics	8	0.90	0.06

Section 1.4

Equating Item Summary Statistics

Table 1.4.1
Equating Item Summary Statistics

Subject	Grade	Year	P-Value		Point Biserial		a		b	
			Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
English Language Arts	03	2017	0.53	0.17	0.41	0.07	0.86	0.34	0.24	0.88
		Previous	0.54	0.16	0.40	0.08	0.90	0.31	0.33	0.76
English Language Arts	04	2017	0.54	0.17	0.36	0.10	0.75	0.28	0.17	1.01
		Previous	0.53	0.17	0.36	0.10	0.79	0.29	0.35	0.94
English Language Arts	05	2017	0.55	0.15	0.39	0.10	0.78	0.28	0.06	0.82
		Previous	0.53	0.16	0.37	0.11	0.79	0.27	0.22	0.87
English Language Arts	06	2017	0.58	0.16	0.38	0.10	0.78	0.30	-0.06	0.86
		Previous	0.56	0.16	0.37	0.10	0.81	0.30	0.09	0.81
English Language Arts	07	2017	0.58	0.17	0.38	0.09	0.74	0.25	-0.08	0.90
		Previous	0.56	0.17	0.38	0.09	0.80	0.24	0.15	0.80
English Language Arts	08	2017	0.55	0.16	0.38	0.10	0.74	0.21	0.10	0.96
		Previous	0.54	0.16	0.37	0.11	0.78	0.22	0.23	0.92
Mathematics	03	2017	0.57	0.16	0.36	0.08	0.86	0.19	0.16	0.89
		Previous	0.58	0.17	0.34	0.09	0.88	0.20	0.24	0.91
Mathematics	04	2017	0.48	0.14	0.32	0.10	0.91	0.32	0.70	0.88
		Previous	0.47	0.14	0.32	0.09	0.97	0.30	0.76	0.74
Mathematics	05	2017	0.44	0.12	0.34	0.10	1.00	0.30	0.84	0.67
		Previous	0.44	0.11	0.33	0.09	1.13	0.38	0.90	0.61
Mathematics	06	2017	0.50	0.15	0.31	0.08	0.82	0.28	0.55	0.93
		Previous	0.51	0.16	0.30	0.09	0.80	0.26	0.57	1.01
Mathematics	07	2017	0.50	0.17	0.33	0.10	0.98	0.33	0.53	0.96
		Previous	0.50	0.16	0.31	0.09	1.02	0.32	0.57	0.86
Mathematics	08	2017	0.49	0.19	0.27	0.11	0.75	0.28	0.69	1.34
		Previous	0.48	0.18	0.27	0.11	0.90	0.31	0.84	1.10

Section 1.5

Summary of Psychometric QC Activities

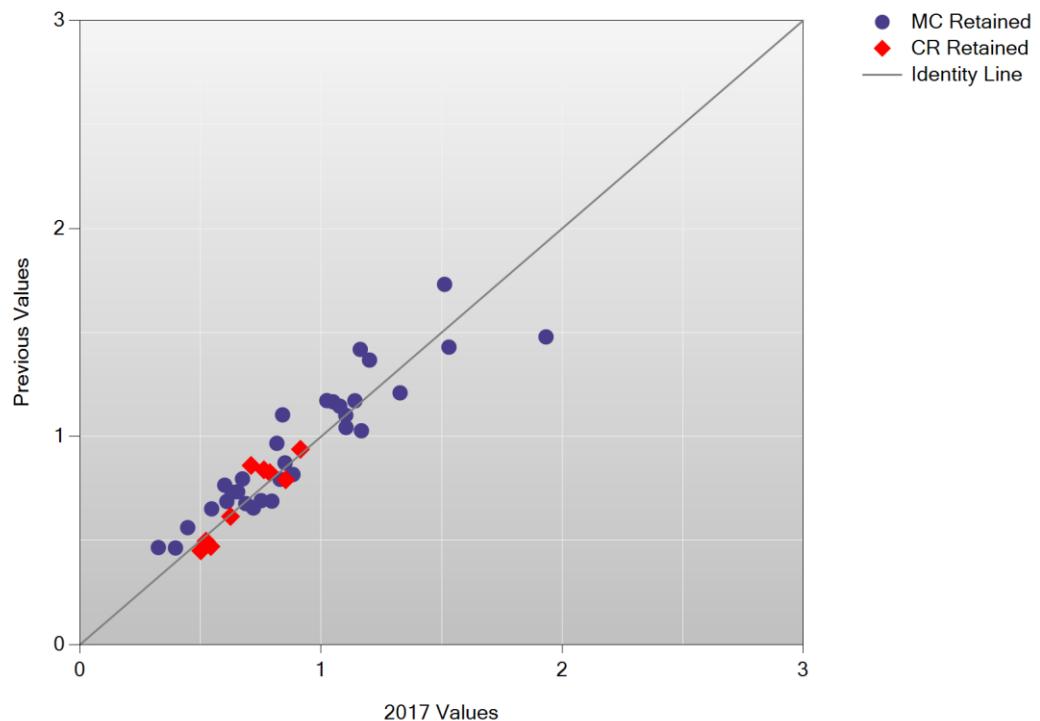
Summary of Psychometric Quality Control Activities

1. Copy match of equating items
2. Key verification process
3. Position shift analysis
4. Rescore analysis
 - a. Stat > 0.5 (Crit) removed
5. Delta analysis
 - a. Stat > 3 (Crit) removed
6. b/b analysis
 - a. Stat > 3 (Crit) removed
7. Equating Analysis
 - a. Reasonableness of item parameters
 - b. Low a, high SE on b, c parameter poorly estimated
 - c. Fit plot
 - d. Normal end evaluation
 - e. Delta plot
 - f. a/a plot, b/b plot
 - g. TCCs and information functions
 - h. Achievement levels and scaled score distributions
8. Watch List (items were continuously evaluated)
 - a. 8 criteria
 - b. Statistical values
 - c. Content

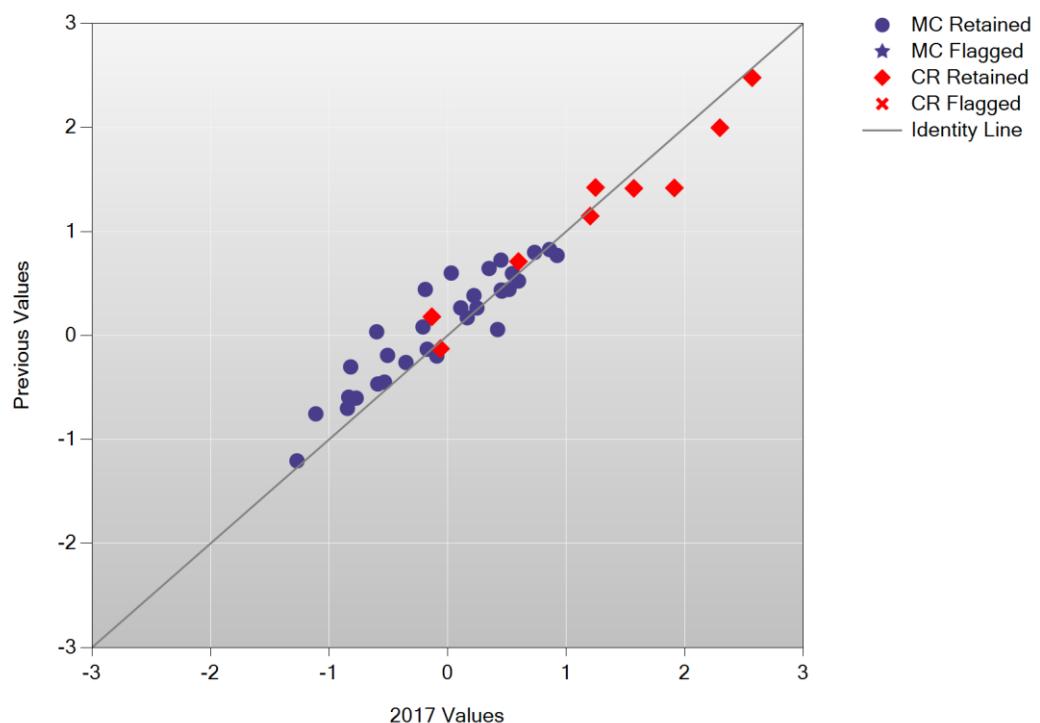
Section 2.1

A/A, B/B, Delta, Test Characteristic Curve, Test Information Function, and Cumulative Scale Score Distribution Plots

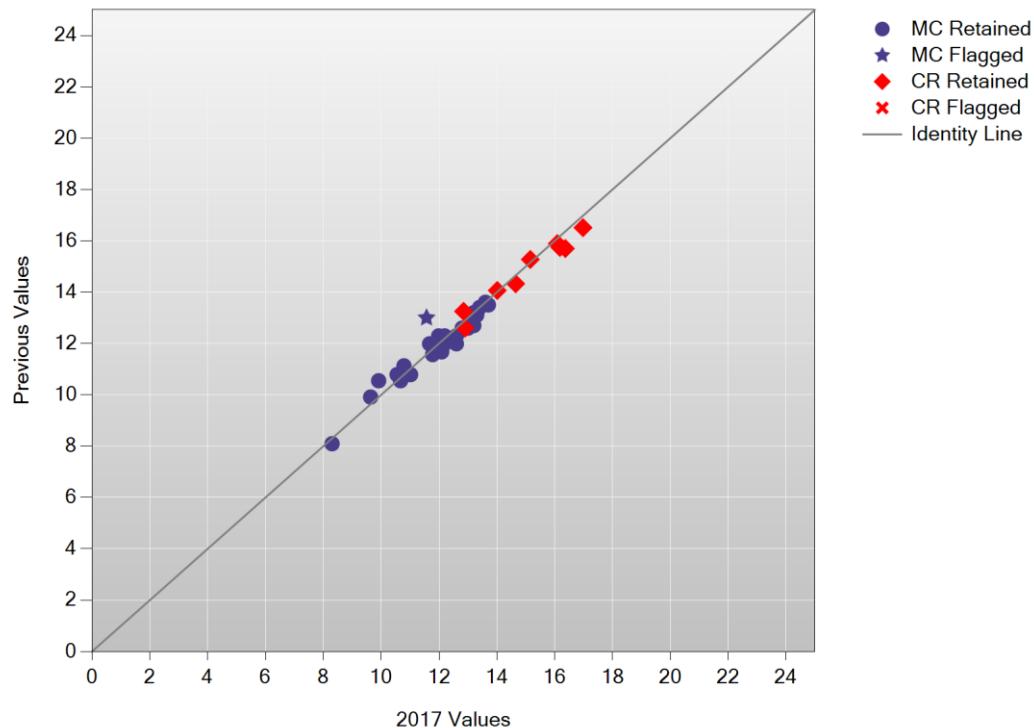
A/A Plot: English Language Arts Grade 3



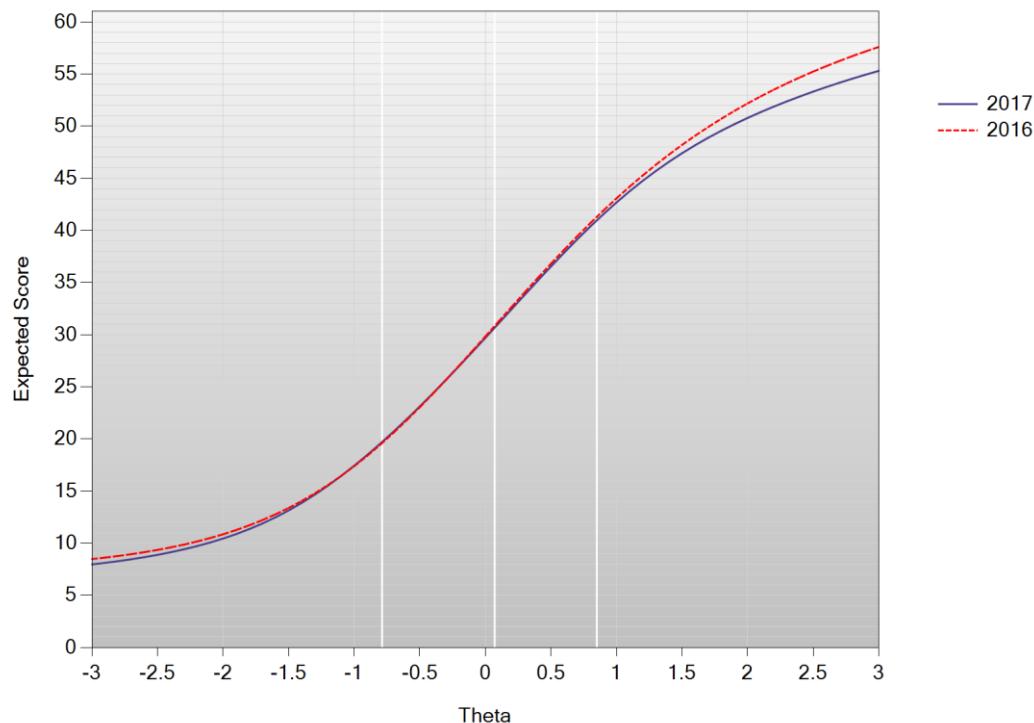
B/B Plot: English Language Arts Grade 3



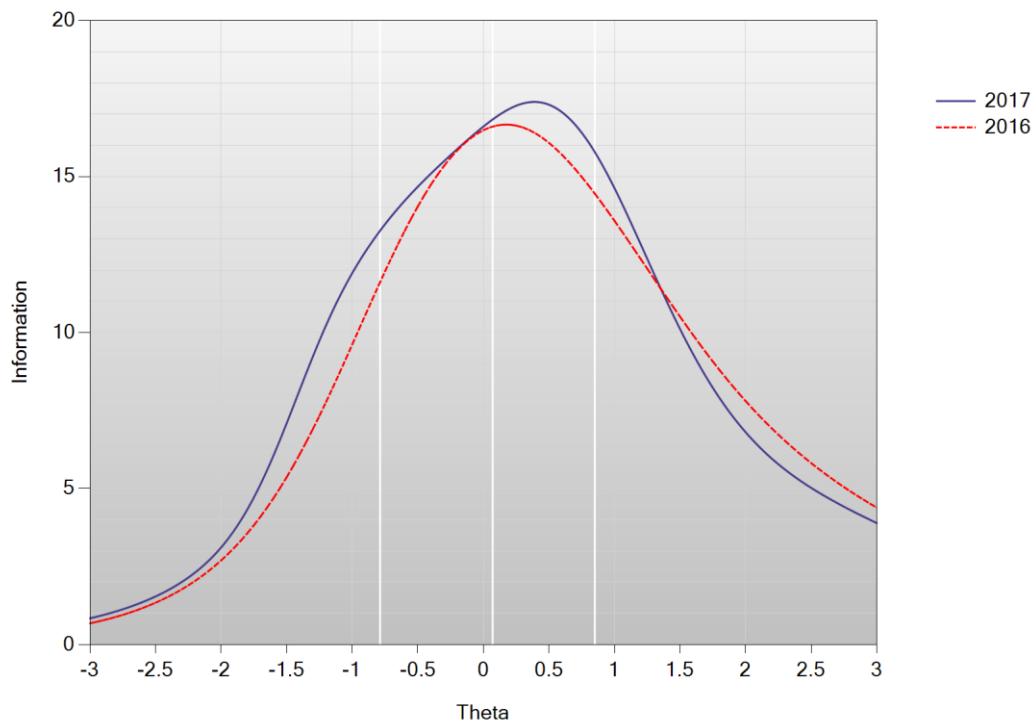
Delta Plot: English Language Arts Grade 3



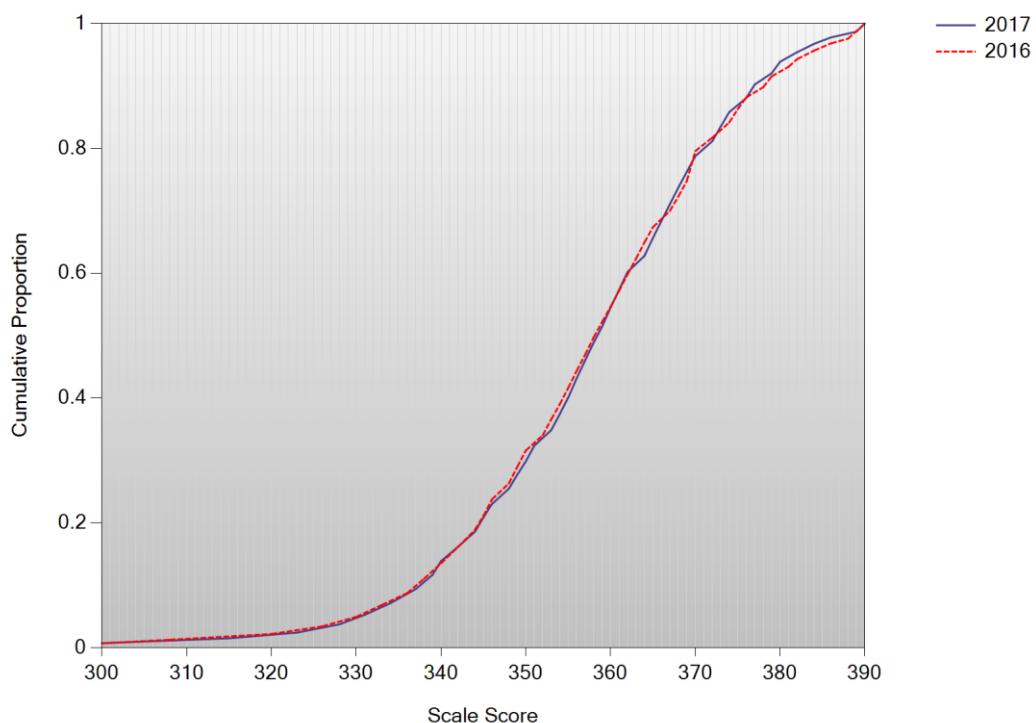
Test Characteristic Curve: English Language Arts Grade 3



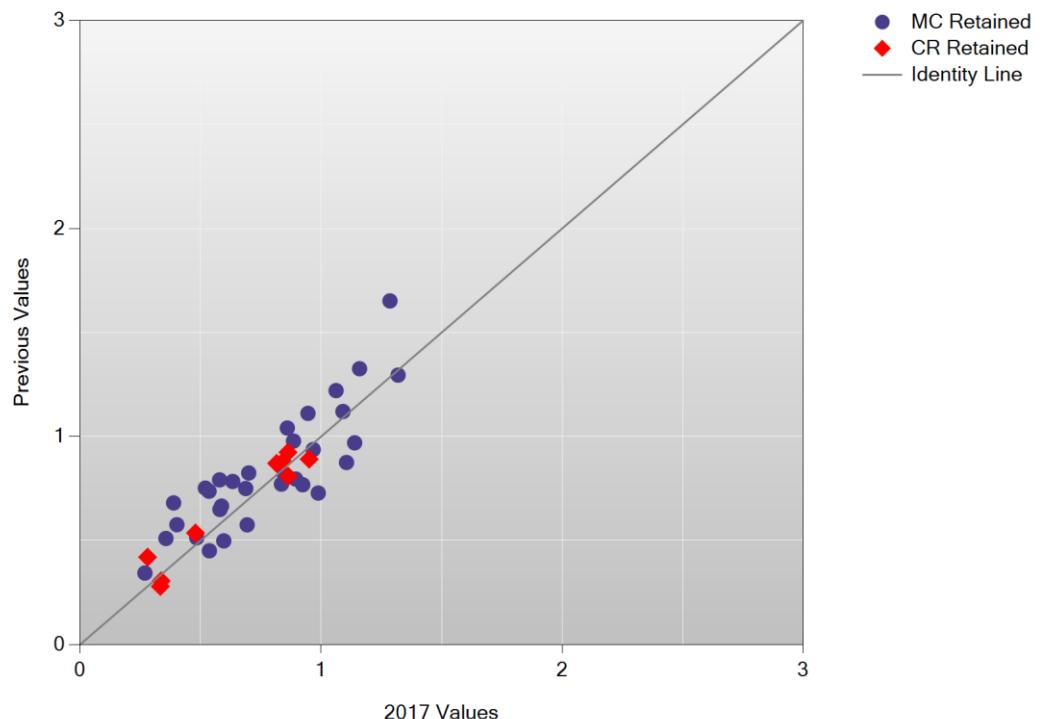
Test Information Function: English Language Arts Grade 3



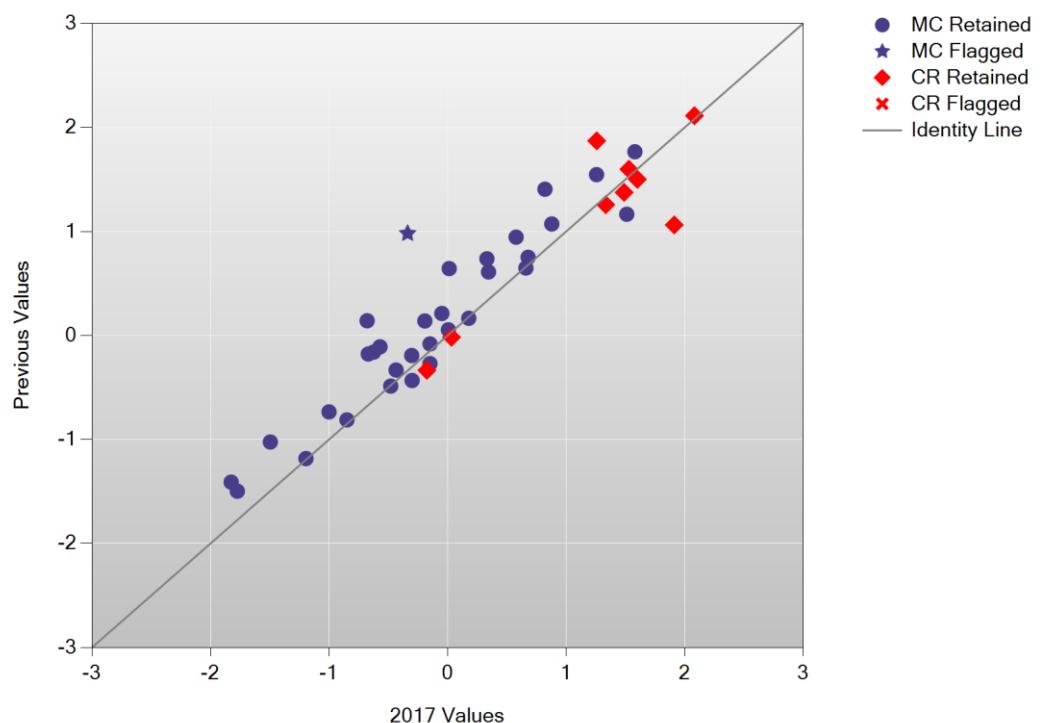
Cumulative Scale Score Distributions: English Language Arts Grade 3



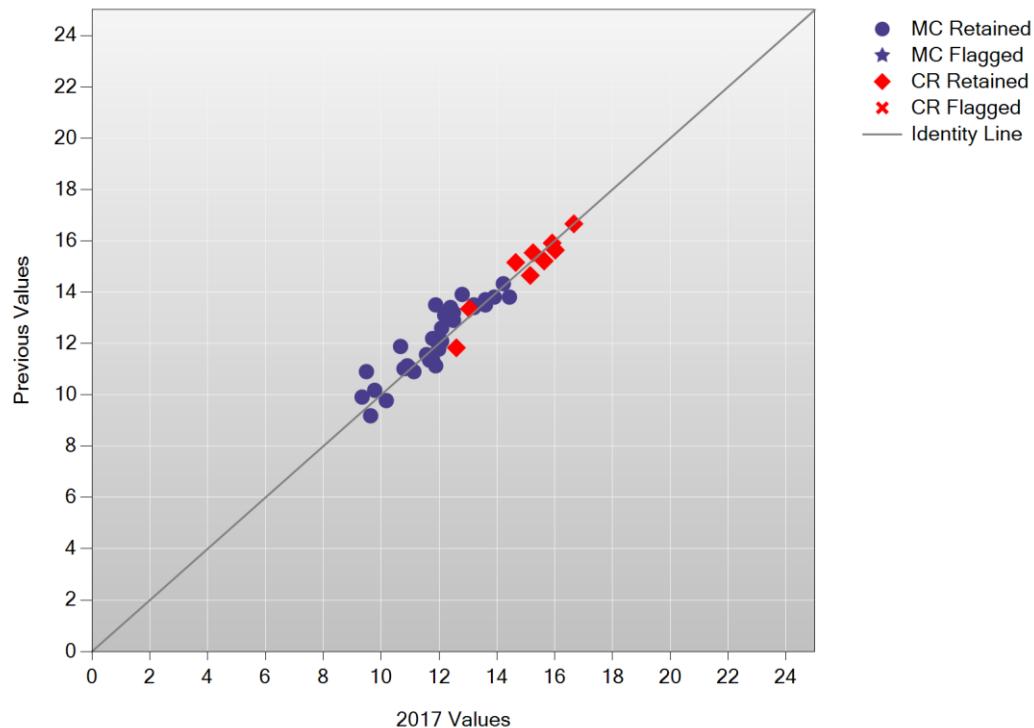
A/A Plot: English Language Arts Grade 4



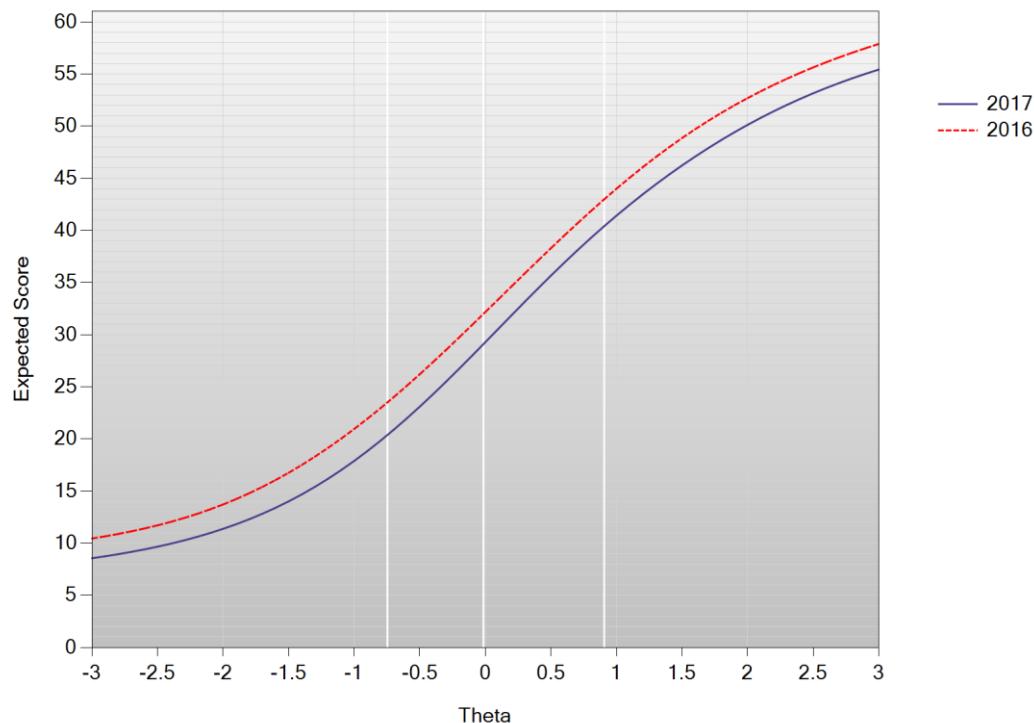
B/B Plot: English Language Arts Grade 4



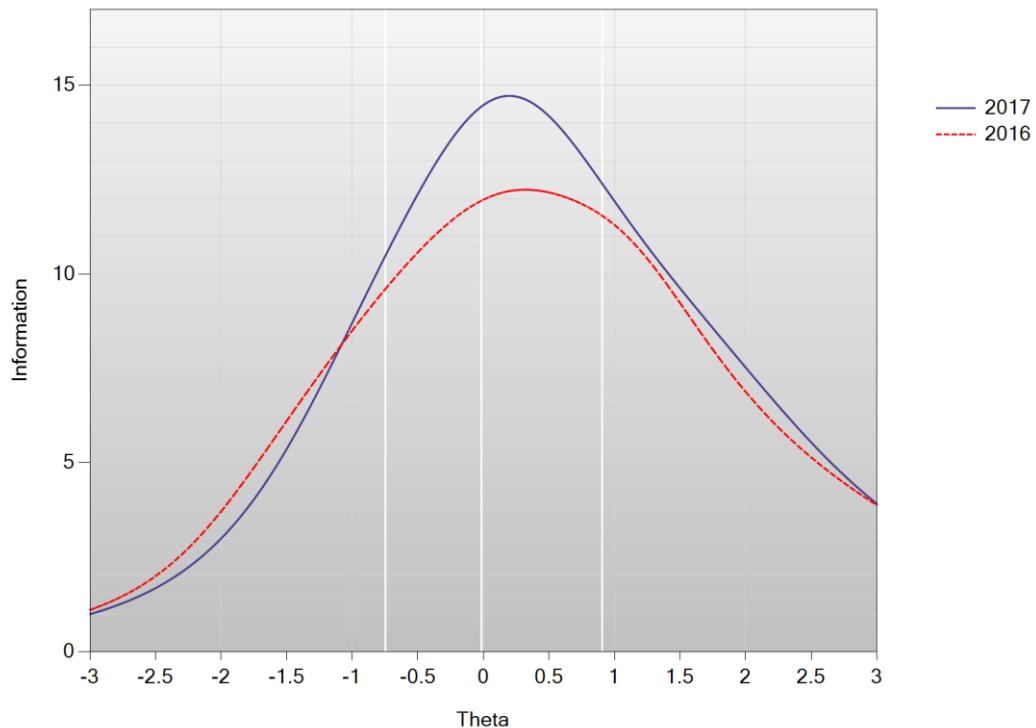
Delta Plot: English Language Arts Grade 4



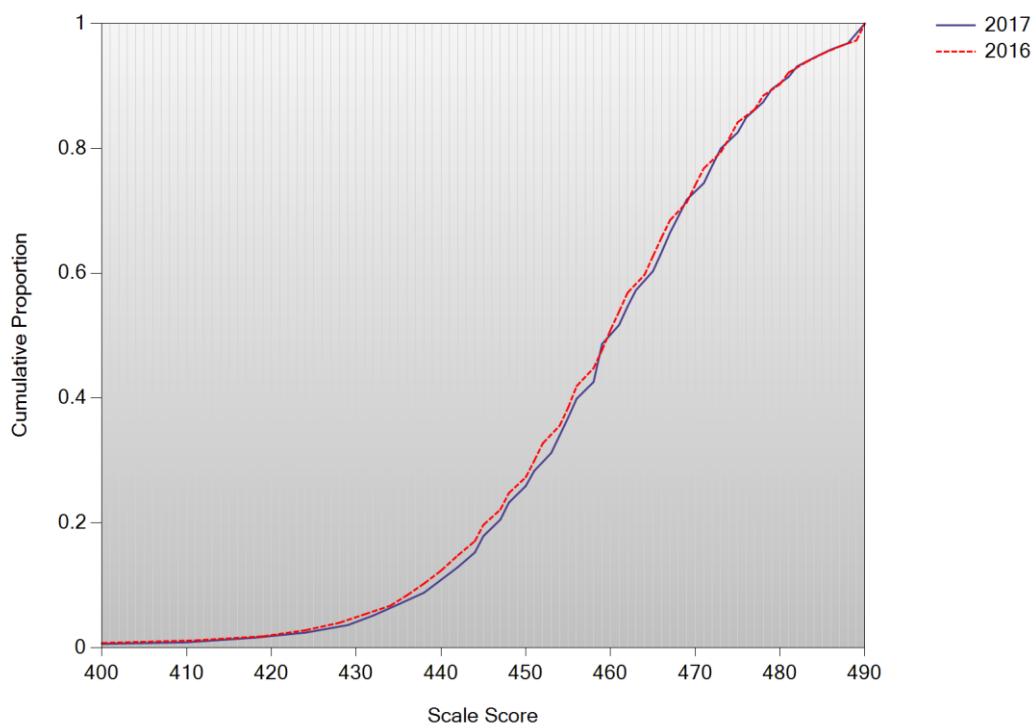
Test Characteristic Curve: English Language Arts Grade 4



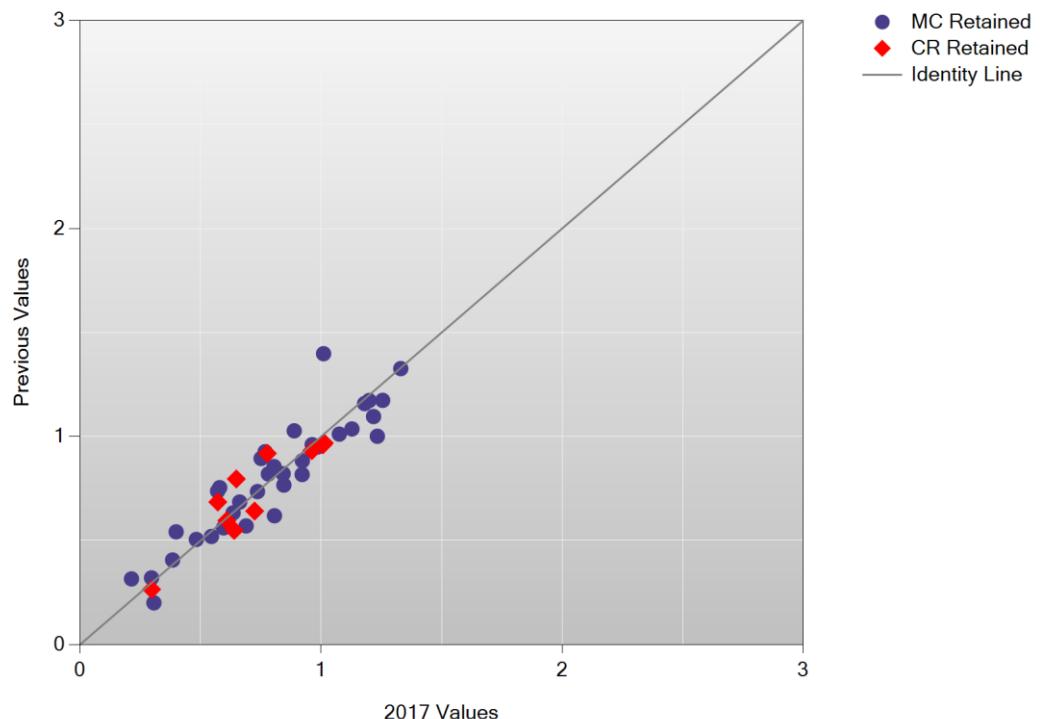
Test Information Function: English Language Arts Grade 4



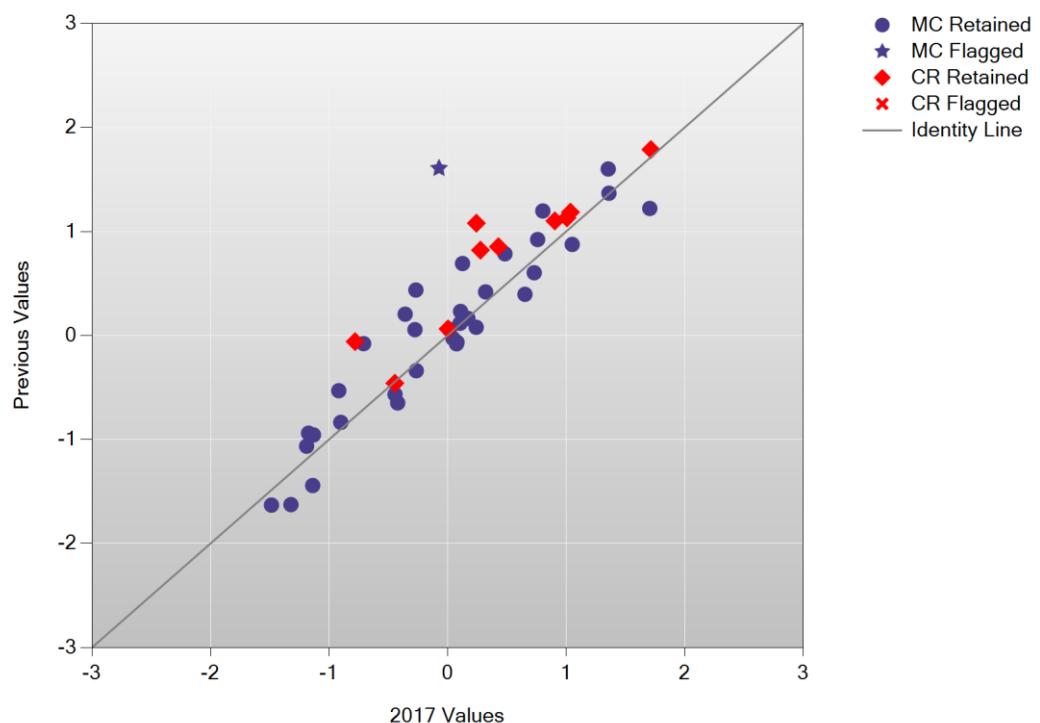
Cumulative Scale Score Distributions: English Language Arts Grade 4



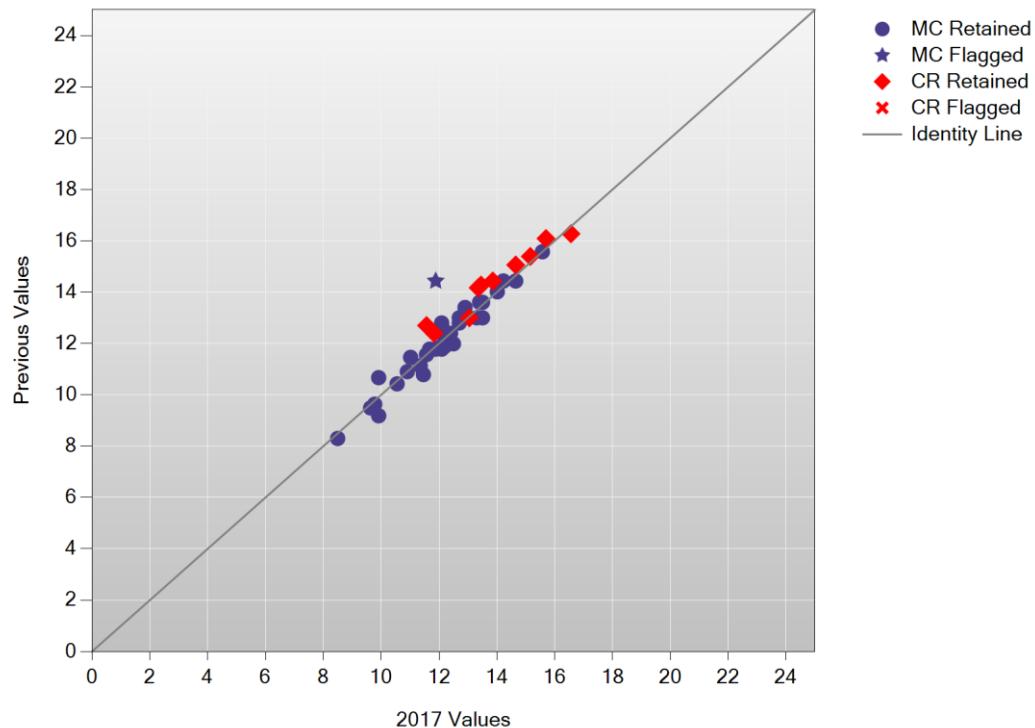
A/A Plot: English Language Arts Grade 5



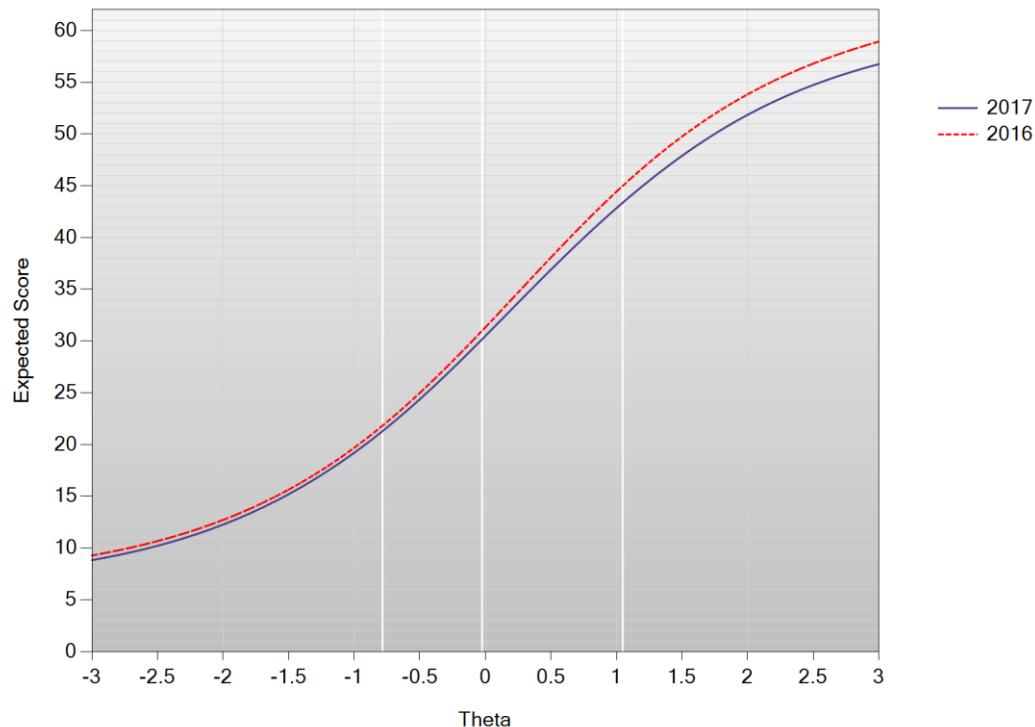
B/B Plot: English Language Arts Grade 5



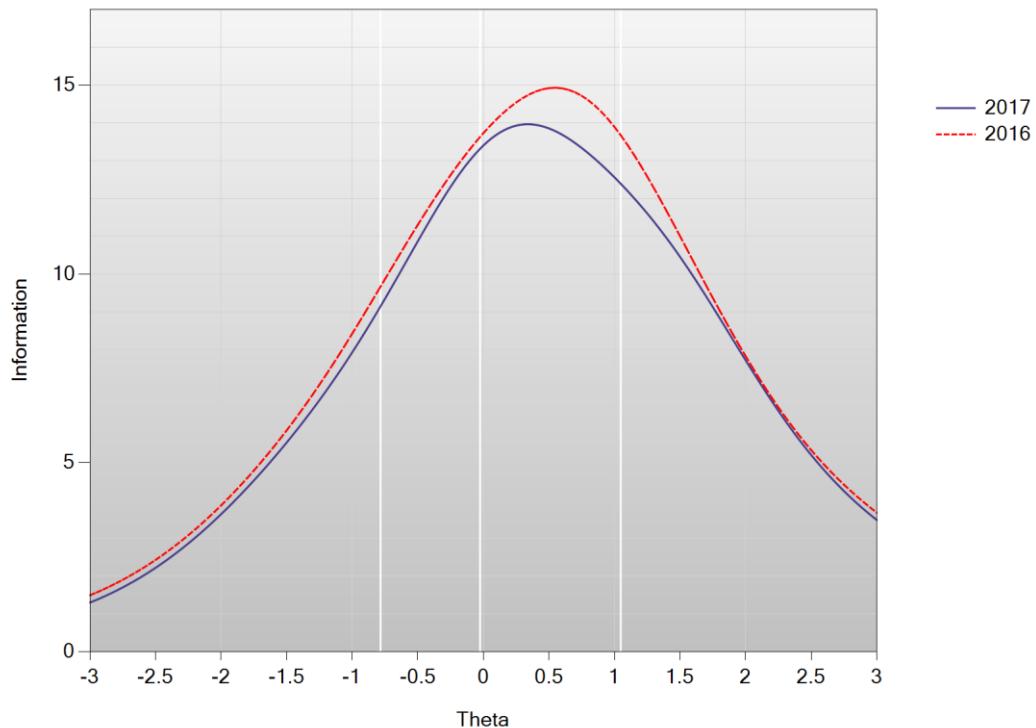
Delta Plot: English Language Arts Grade 5



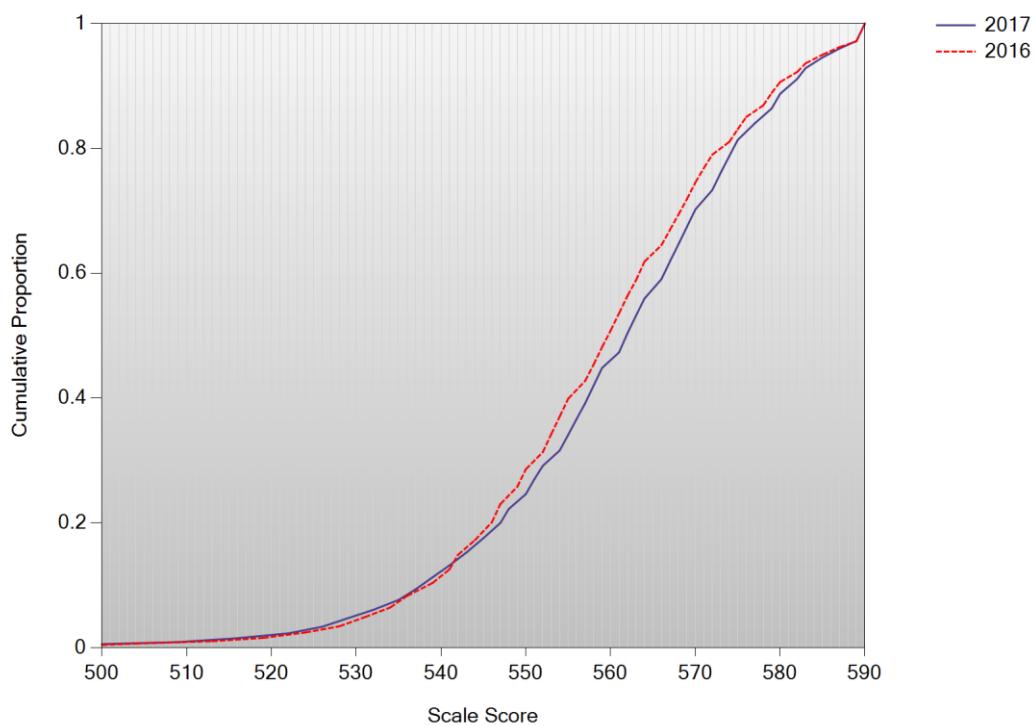
Test Characteristic Curve: English Language Arts Grade 5



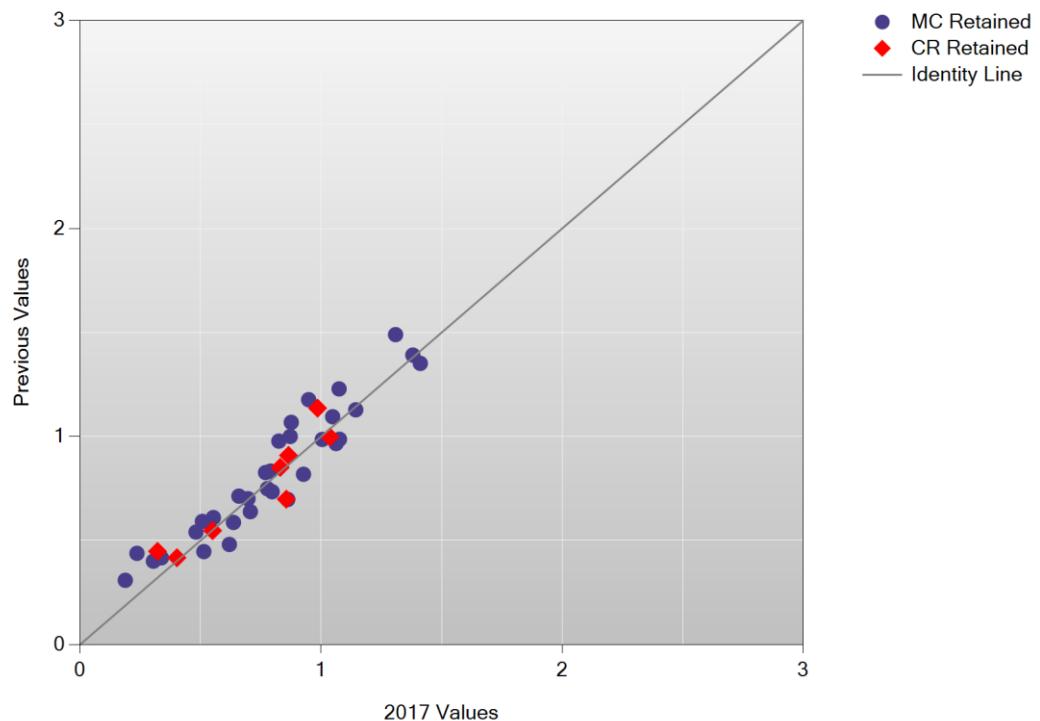
Test Information Function: English Language Arts Grade 5



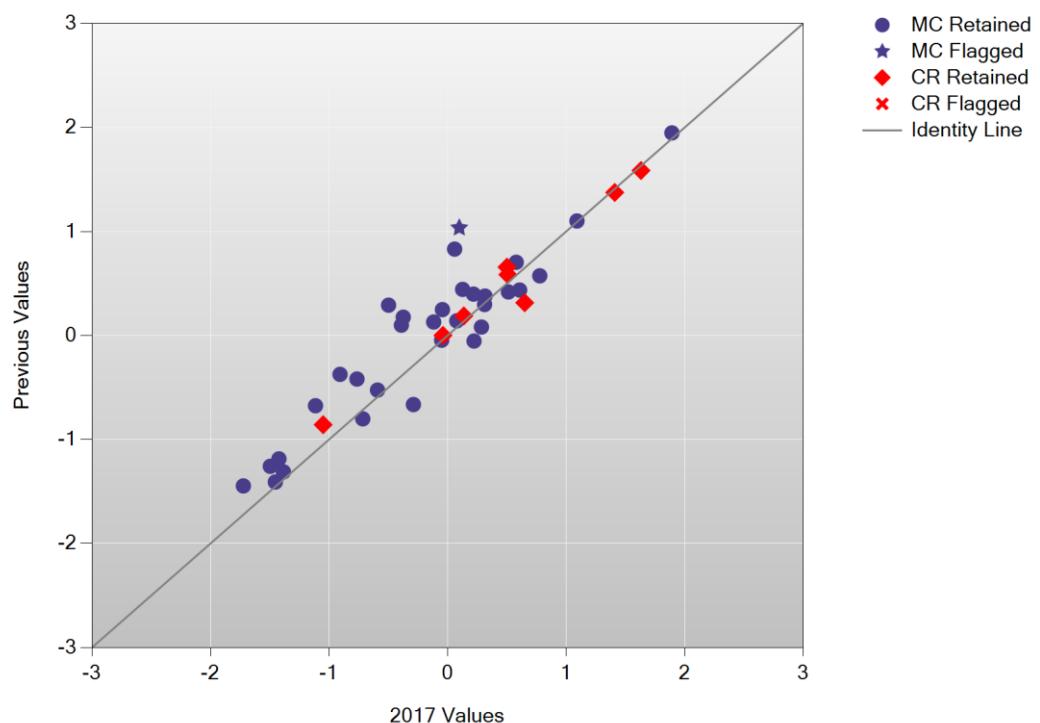
Cumulative Scale Score Distributions: English Language Arts Grade 5



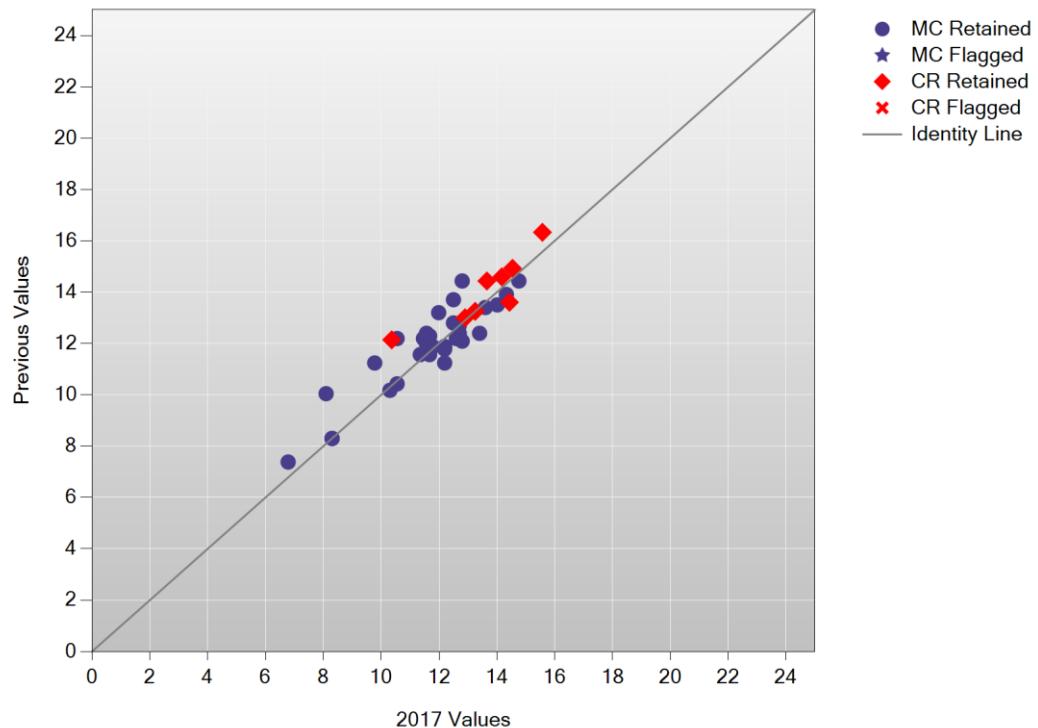
A/A Plot: English Language Arts Grade 6



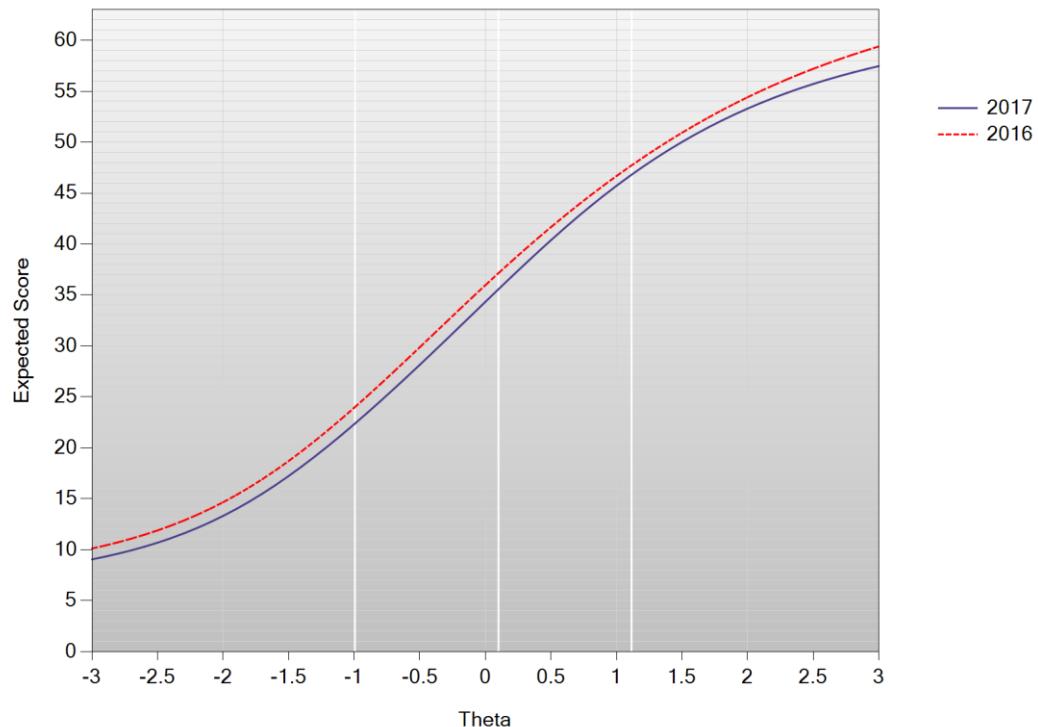
B/B Plot: English Language Arts Grade 6



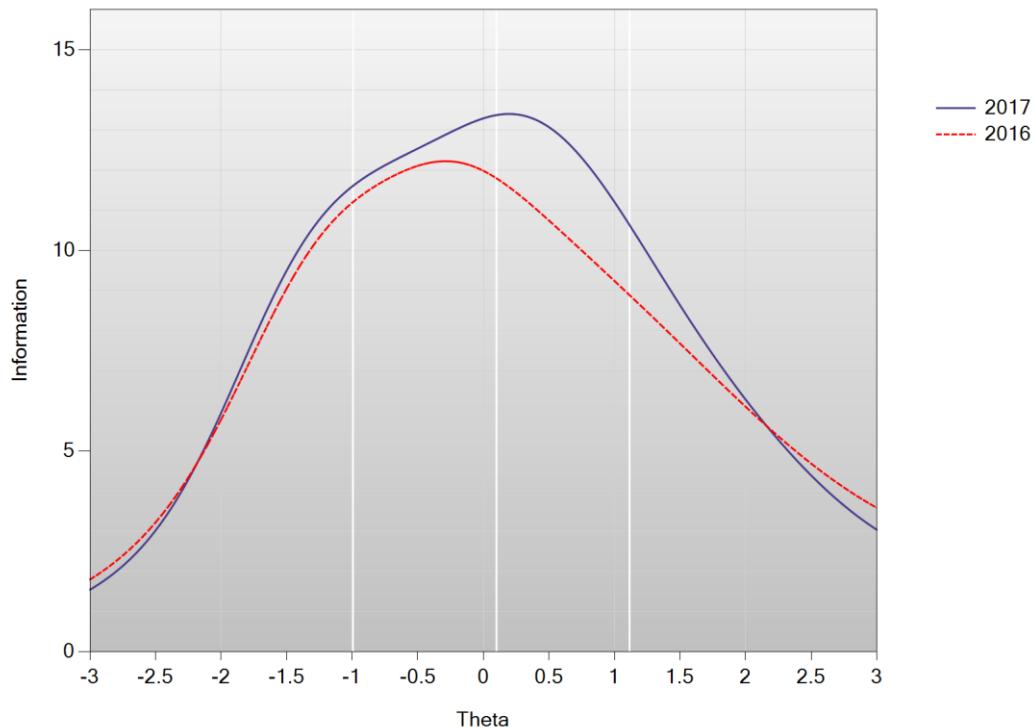
Delta Plot: English Language Arts Grade 6



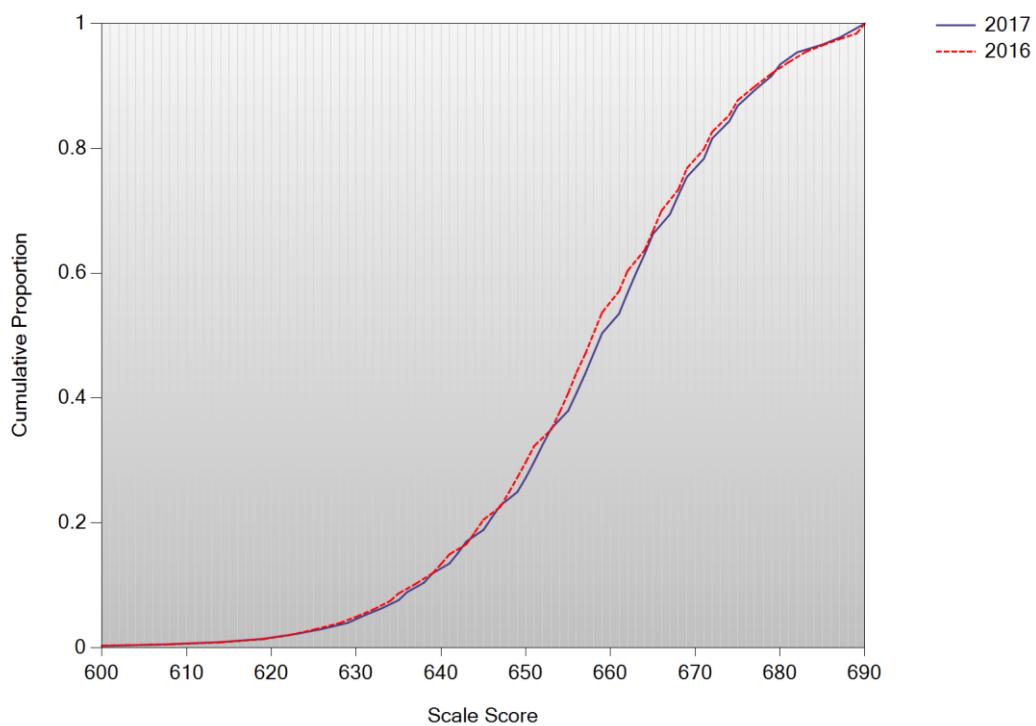
Test Characteristic Curve: English Language Arts Grade 6



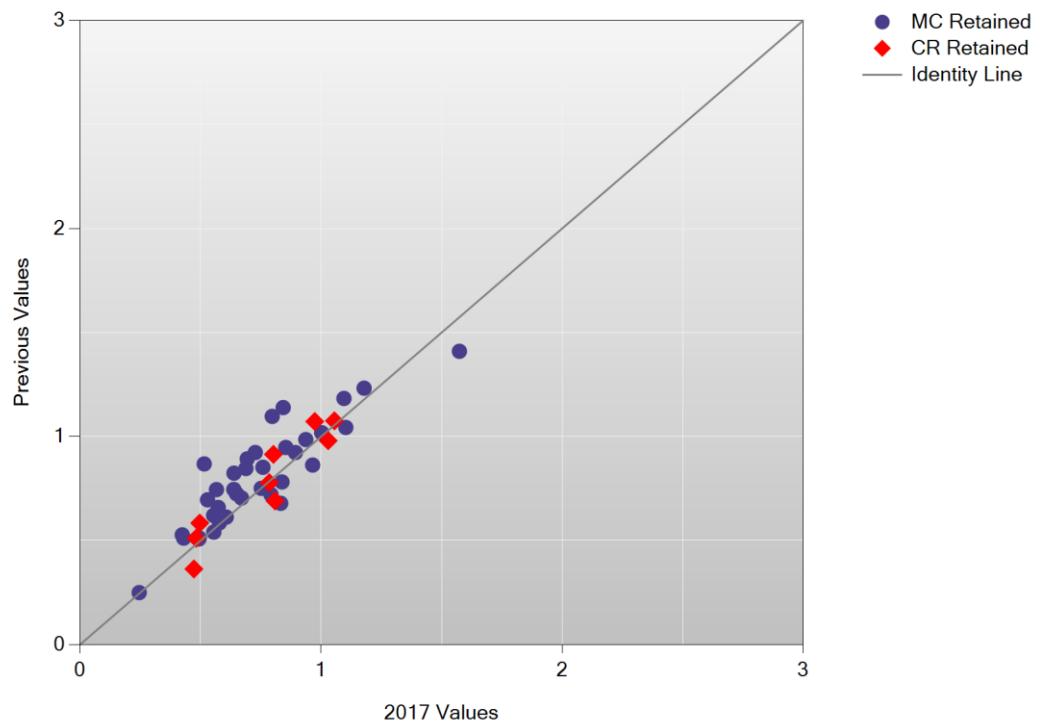
Test Information Function: English Language Arts Grade 6



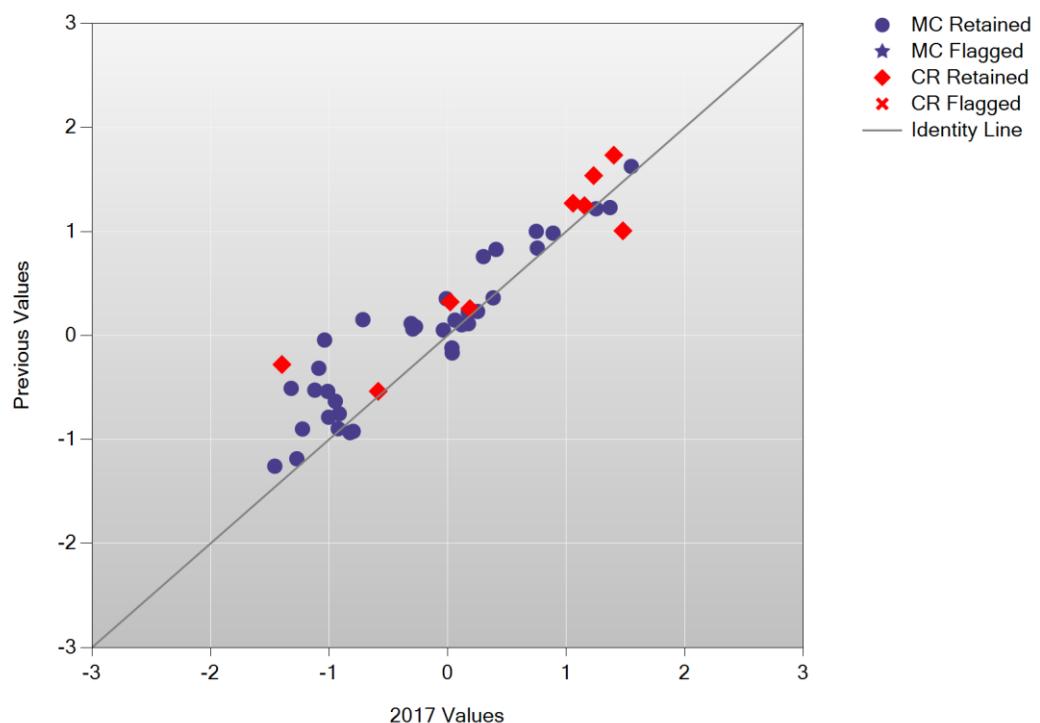
Cumulative Scale Score Distributions: English Language Arts Grade 6



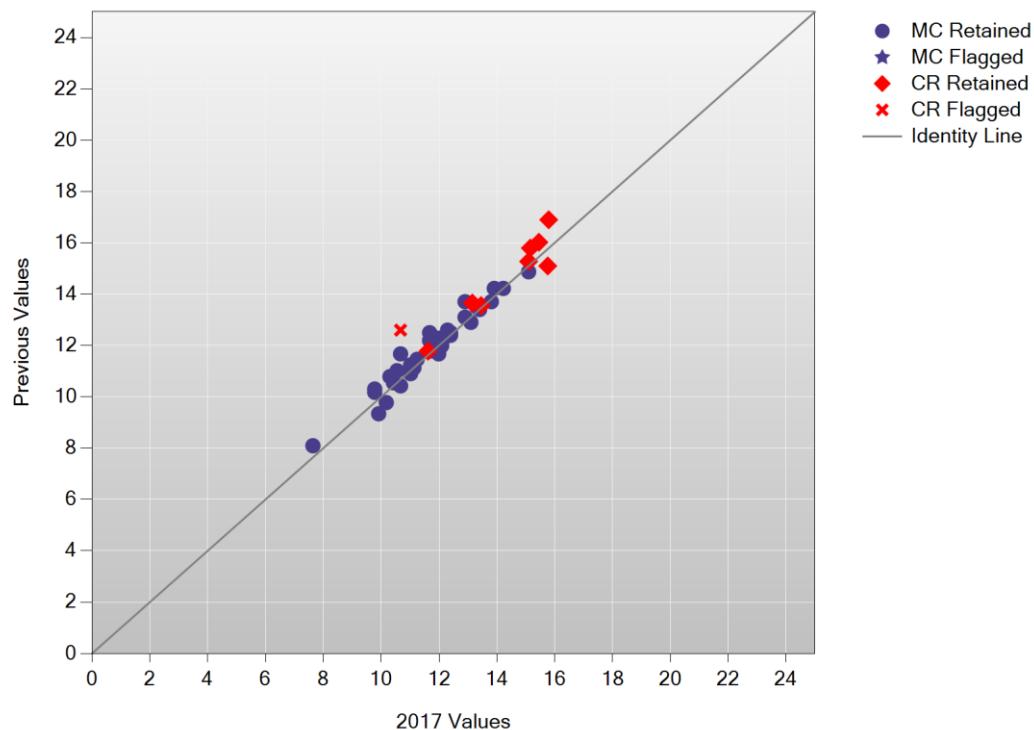
A/A Plot: English Language Arts Grade 7



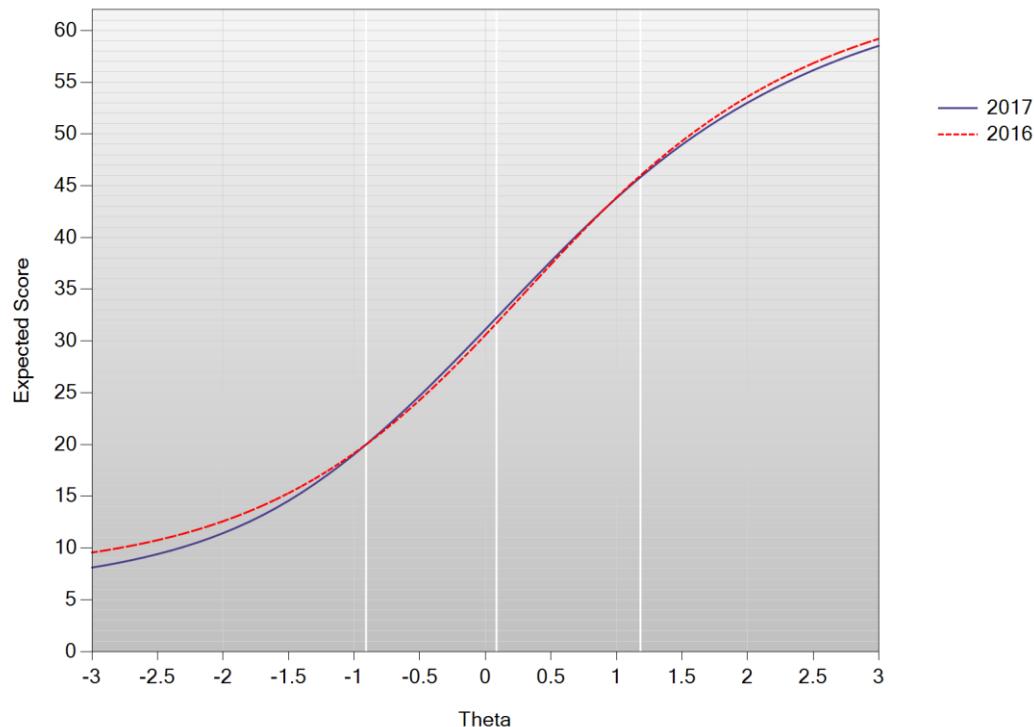
B/B Plot: English Language Arts Grade 7



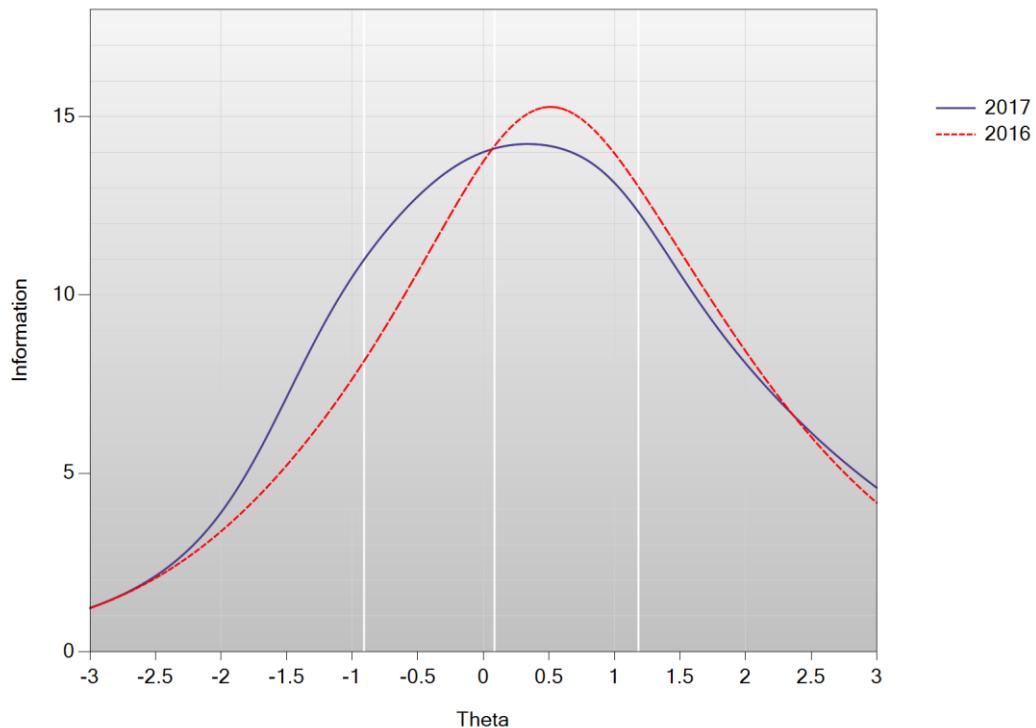
Delta Plot: English Language Arts Grade 7



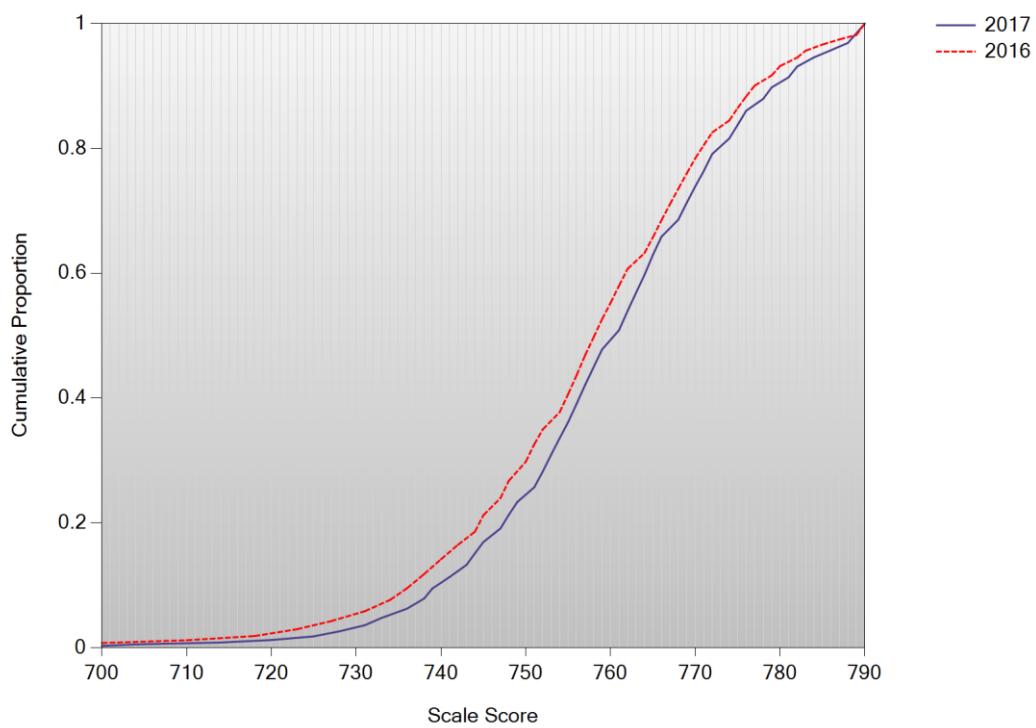
Test Characteristic Curve: English Language Arts Grade 7



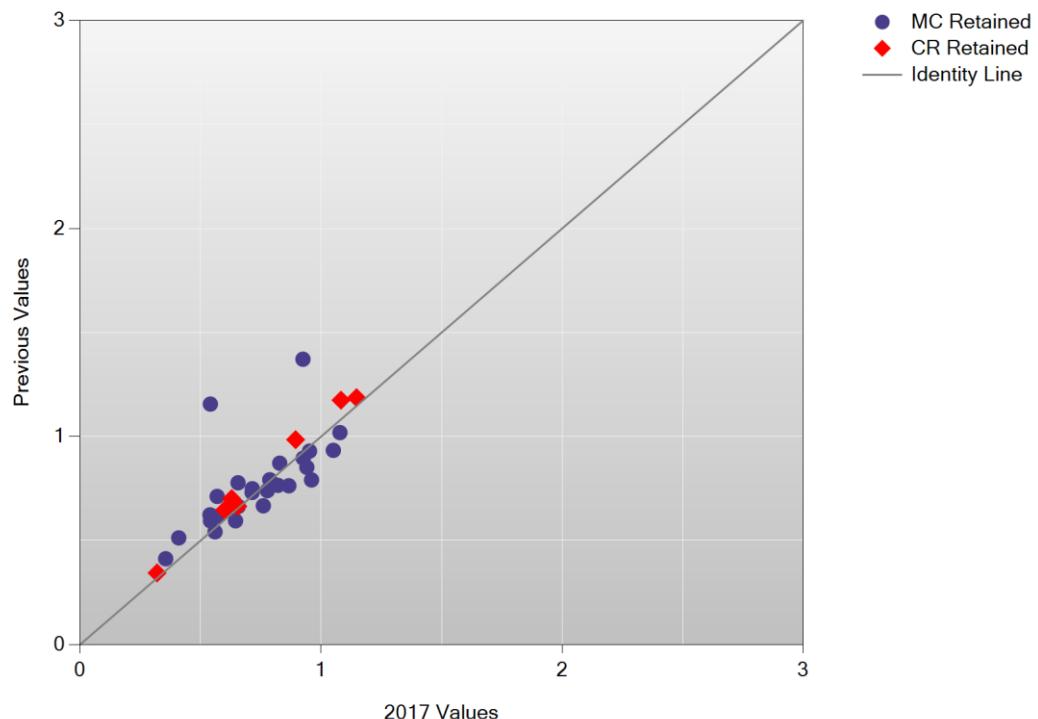
Test Information Function: English Language Arts Grade 7



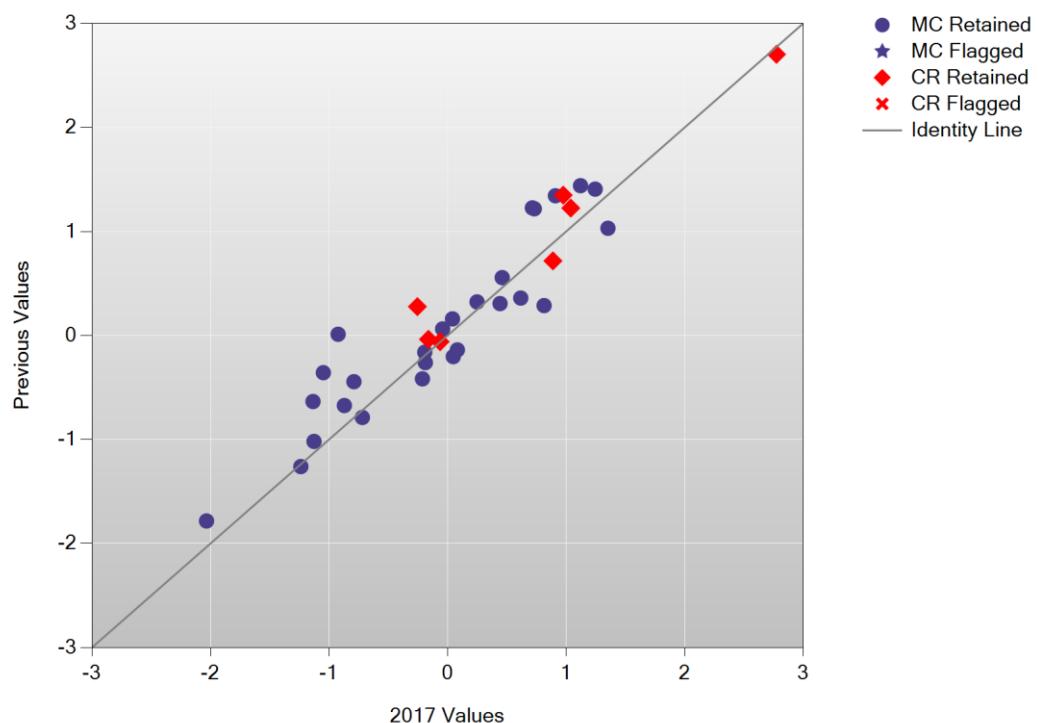
Cumulative Scale Score Distributions: English Language Arts Grade 7



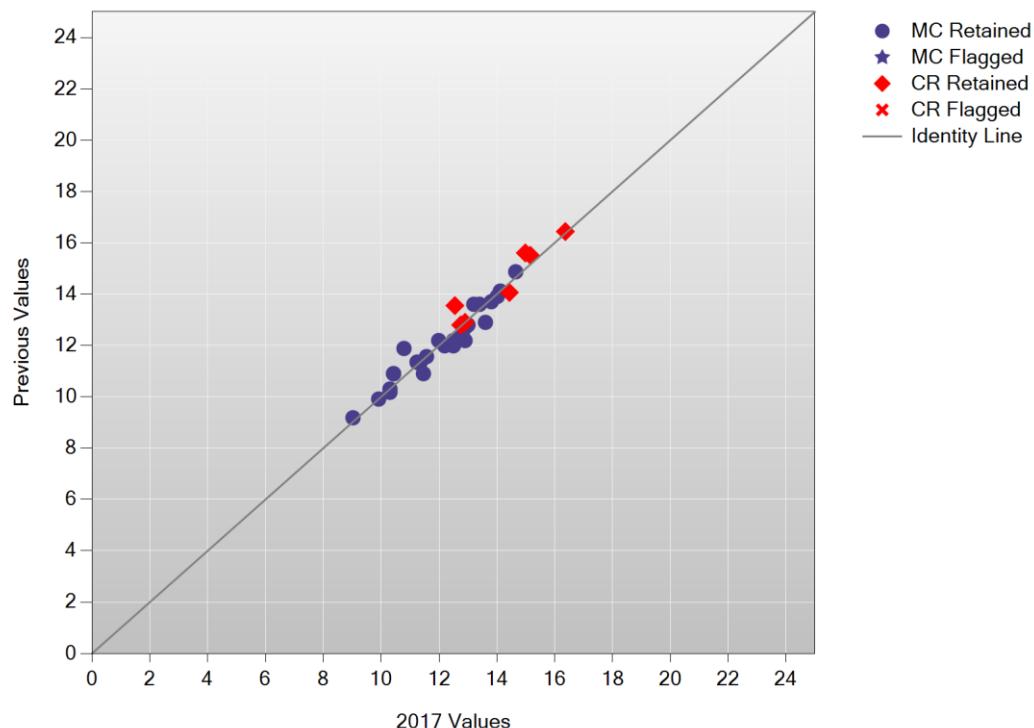
A/A Plot: English Language Arts Grade 8



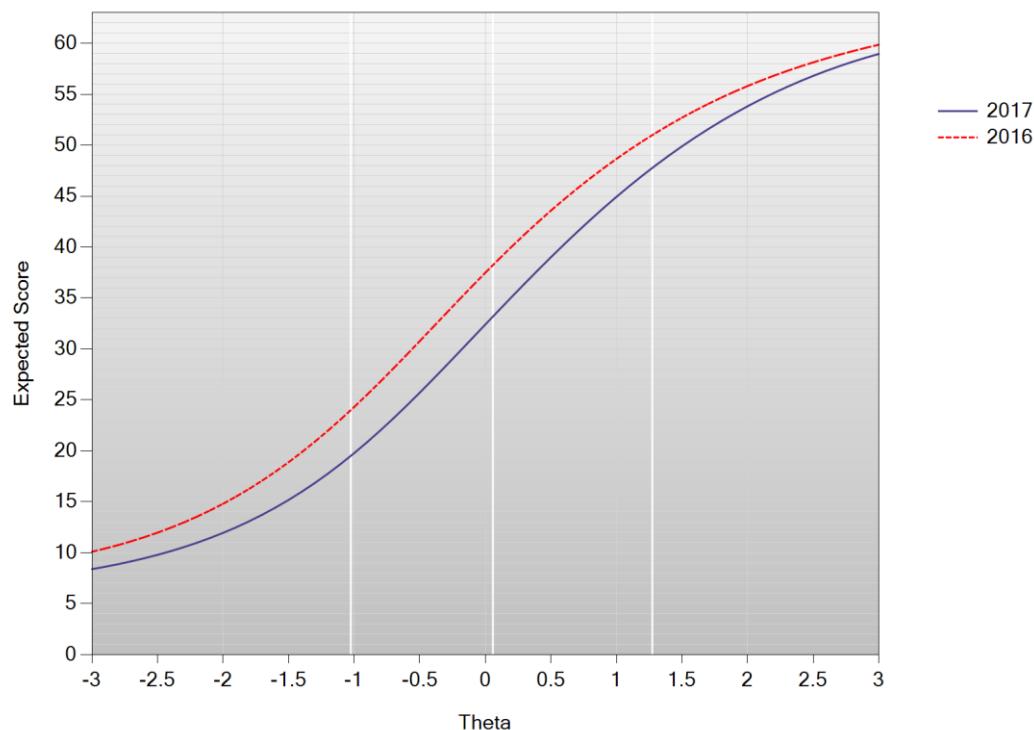
B/B Plot: English Language Arts Grade 8



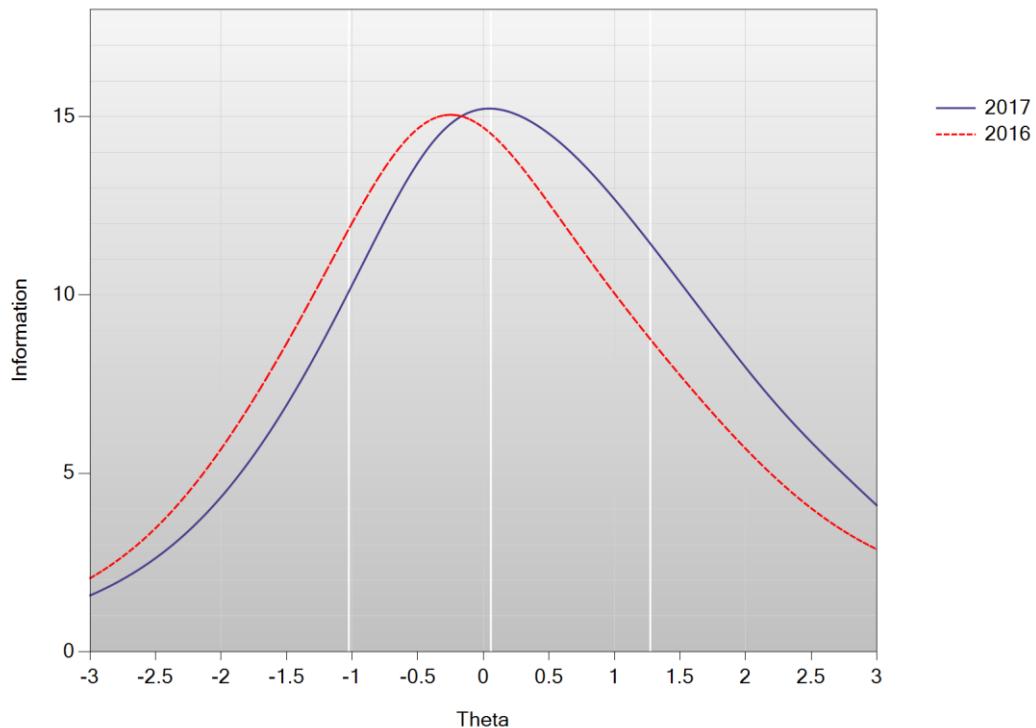
Delta Plot: English Language Arts Grade 8



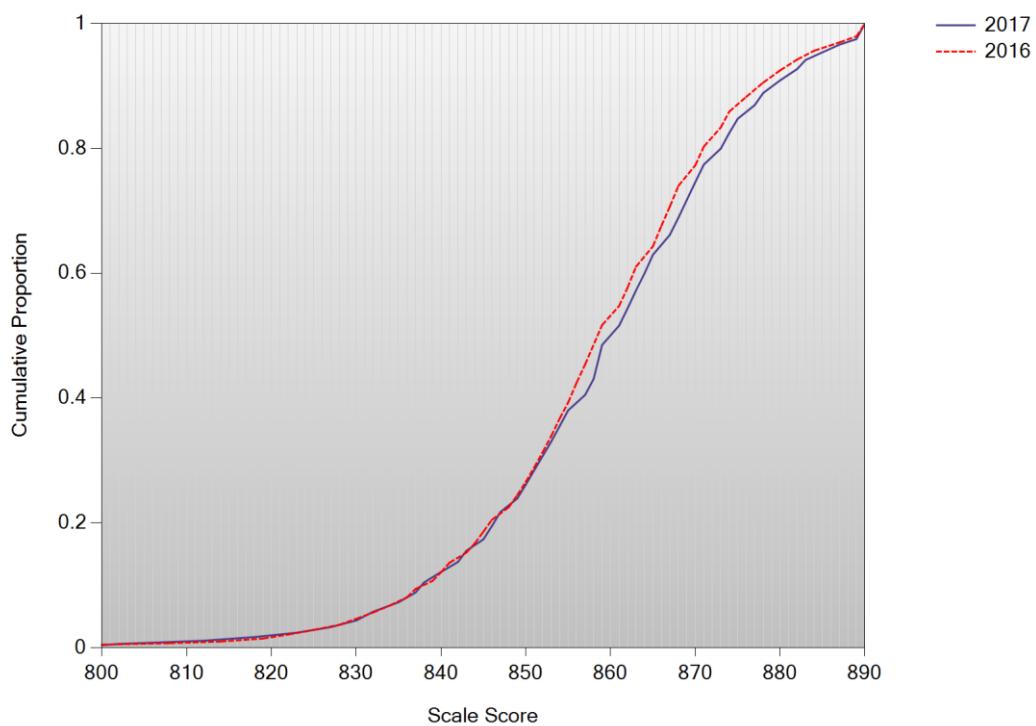
Test Characteristic Curve: English Language Arts Grade 8



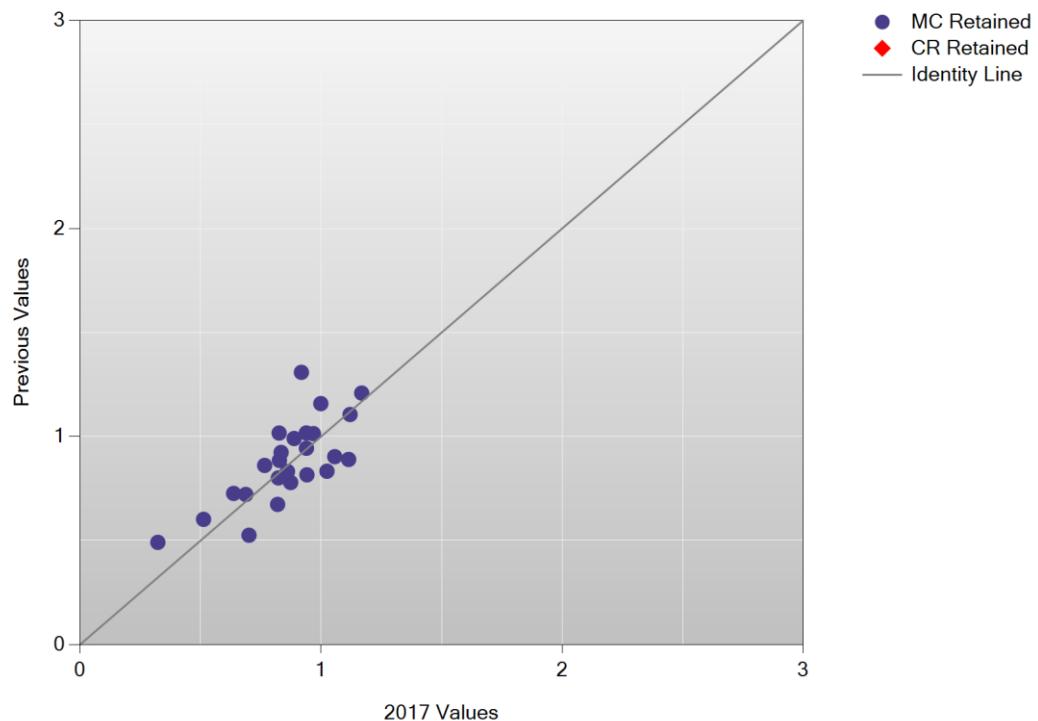
Test Information Function: English Language Arts Grade 8



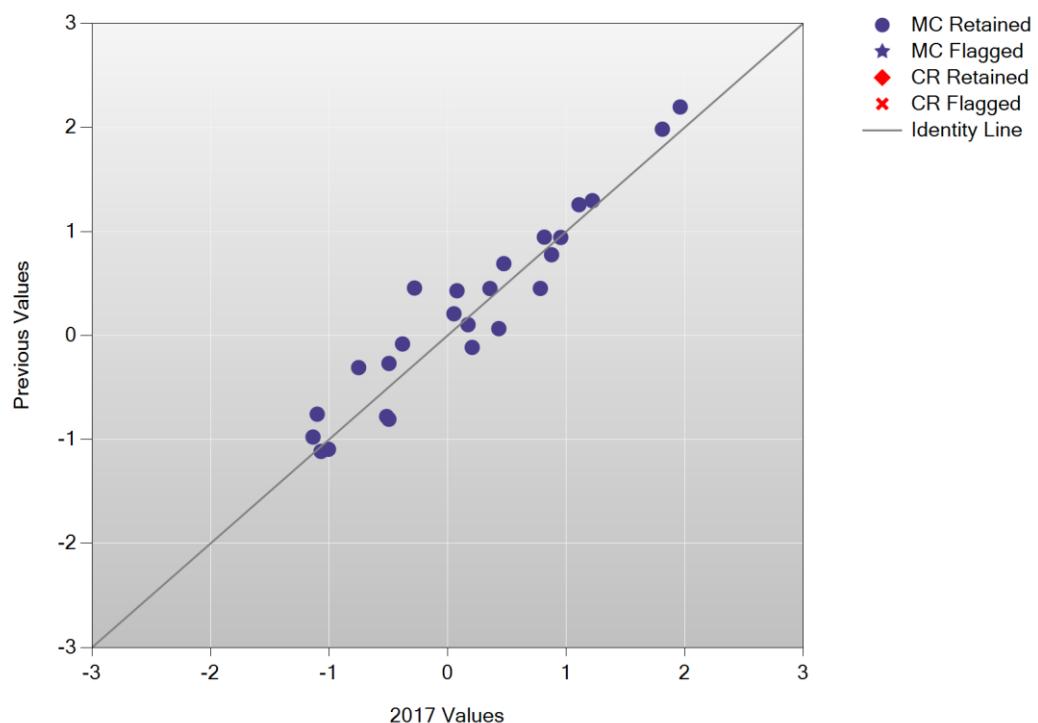
Cumulative Scale Score Distributions: English Language Arts Grade 8



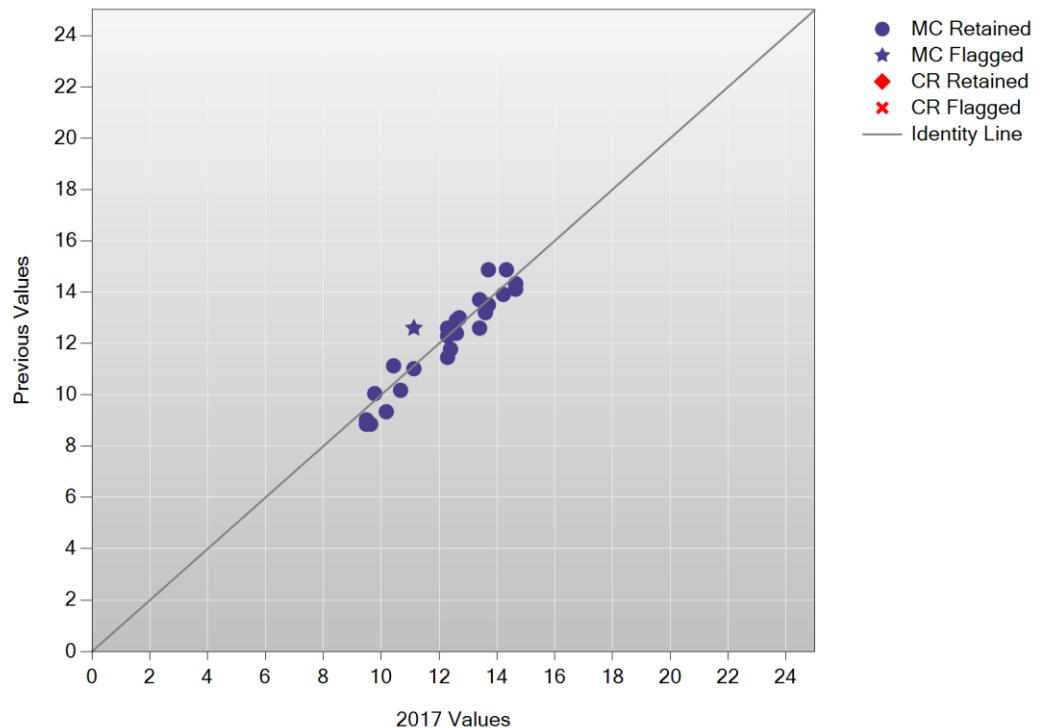
A/A Plot: Mathematics Grade 3



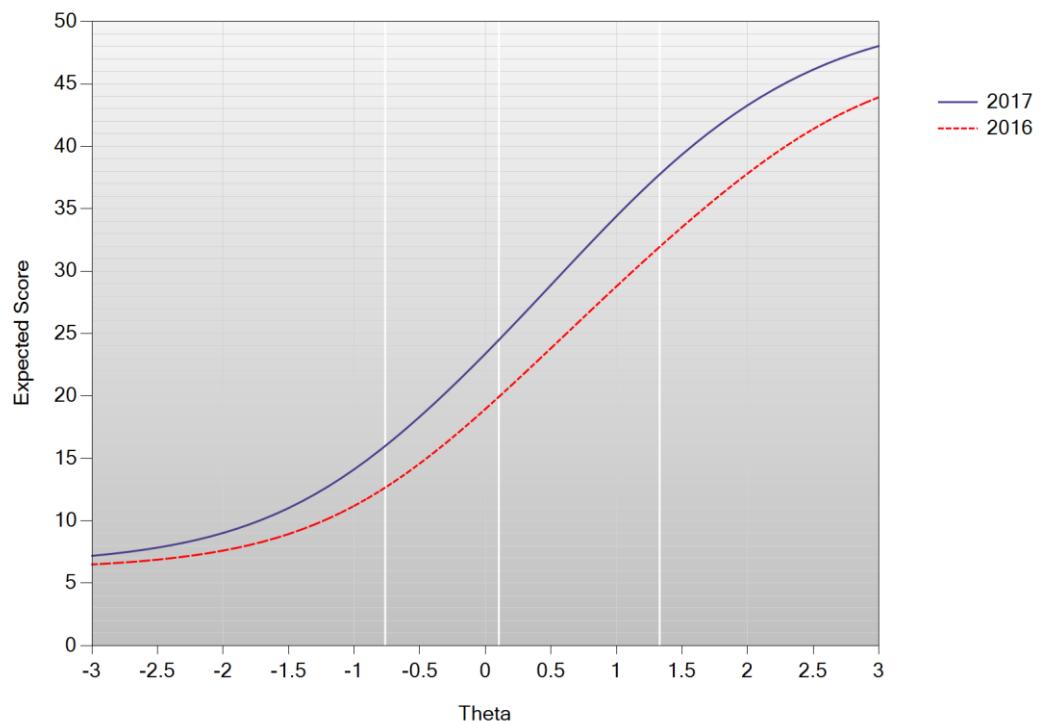
B/B Plot: Mathematics Grade 3



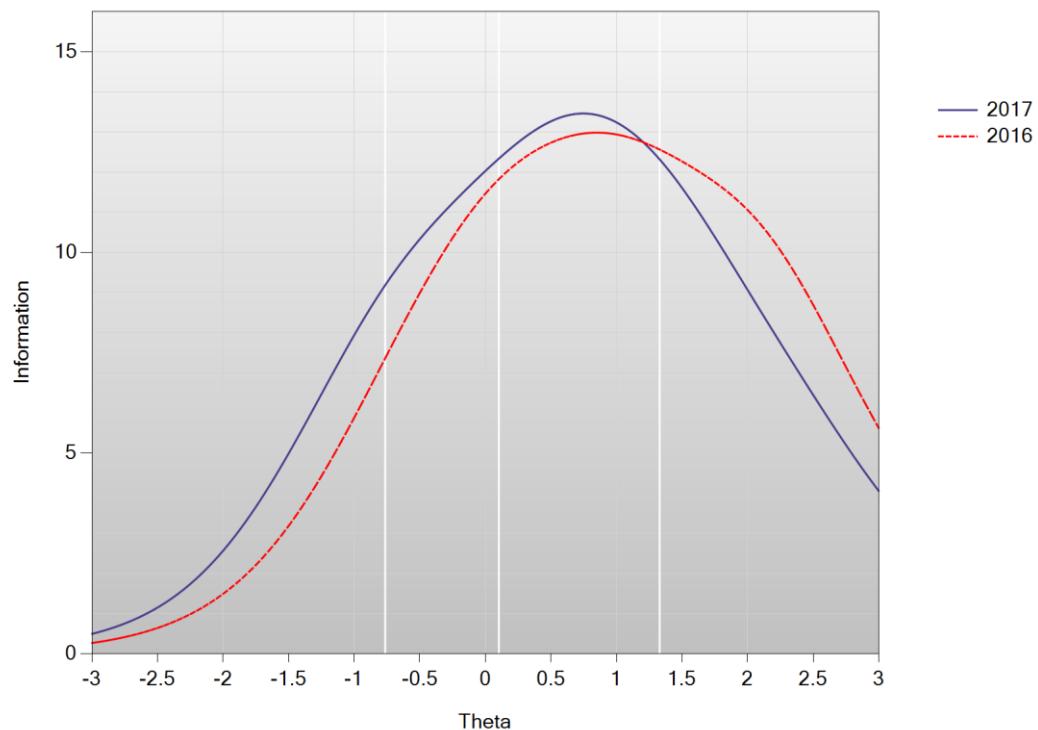
Delta Plot: Mathematics Grade 3



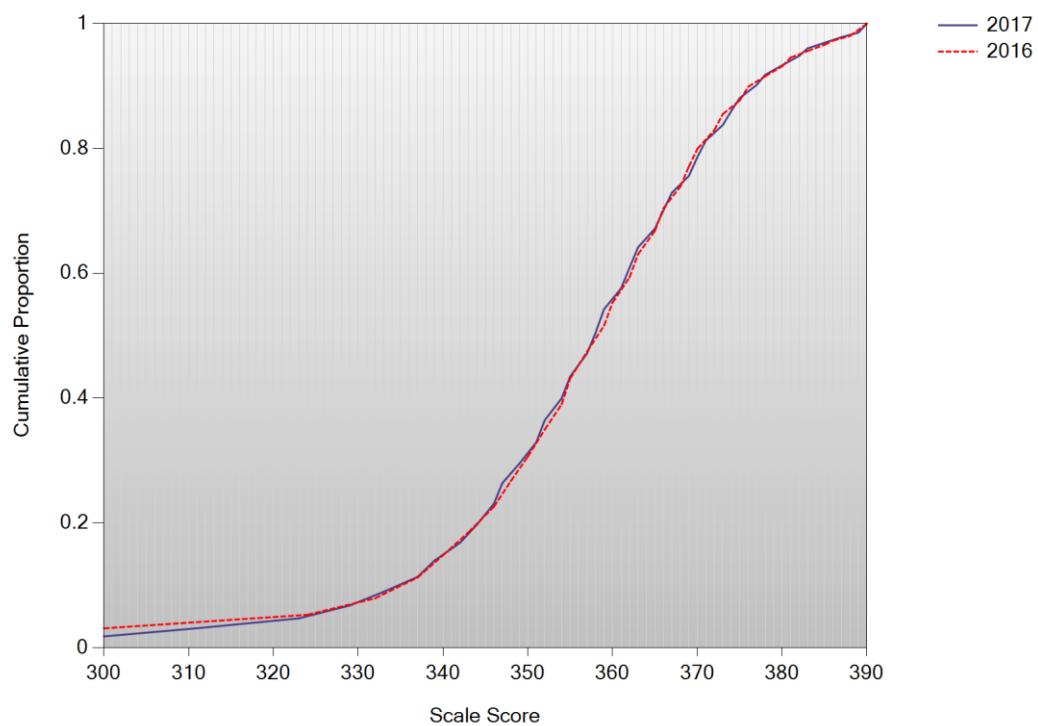
Test Characteristic Curve: Mathematics Grade 3



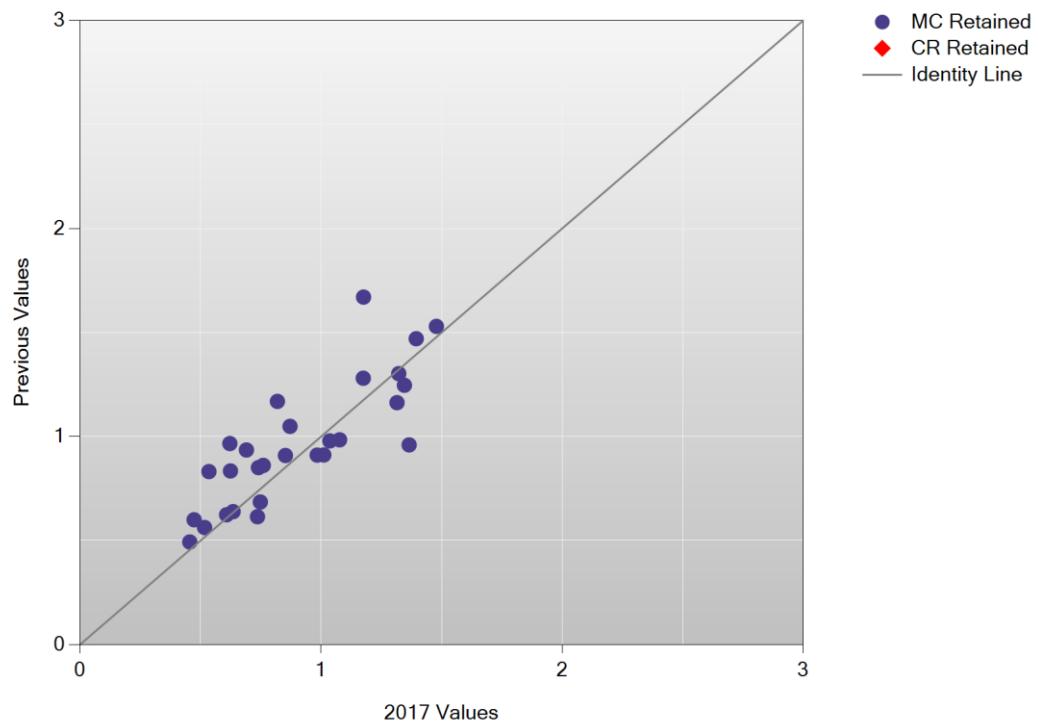
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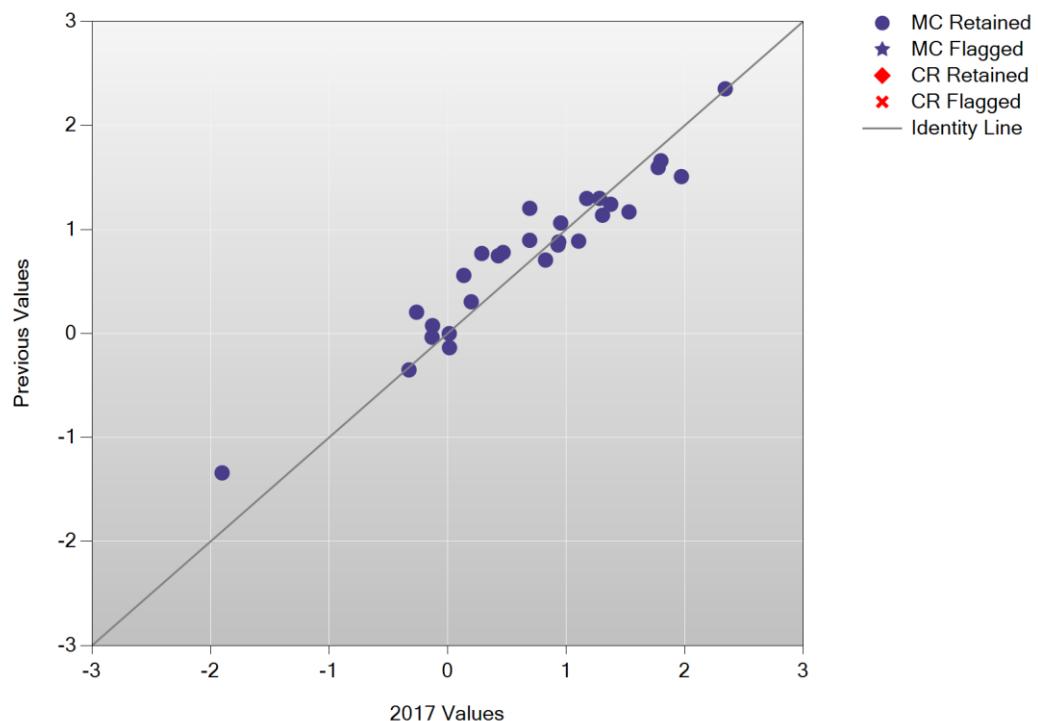
Cumulative Scale Score Distributions: Mathematics Grade 3



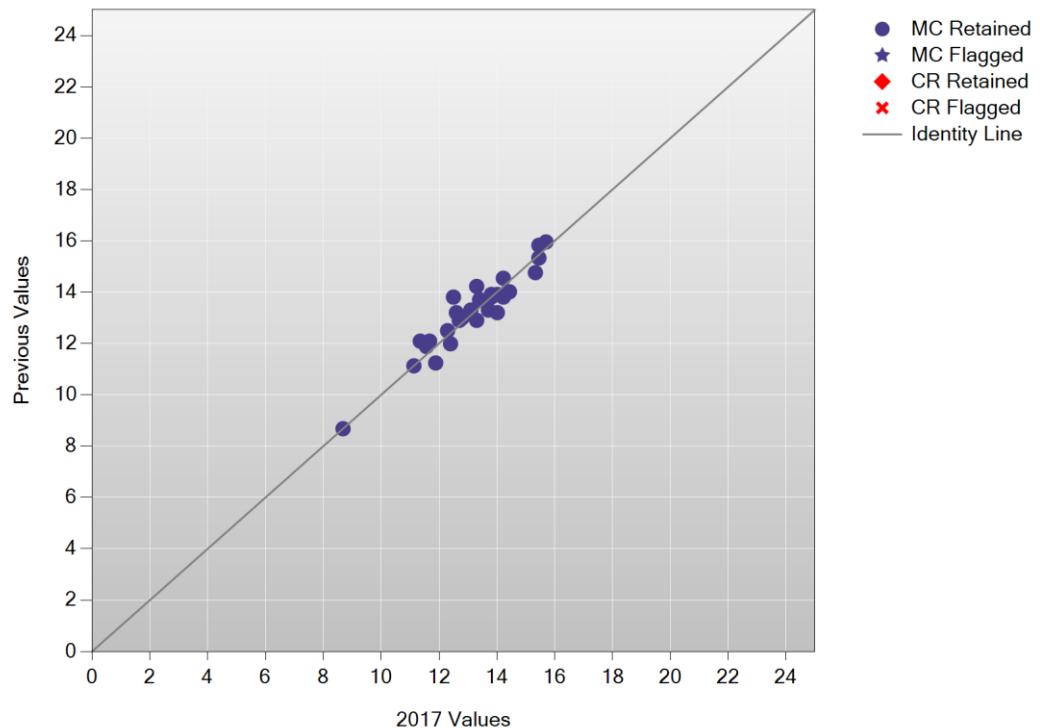
A/A Plot: Mathematics Grade 4



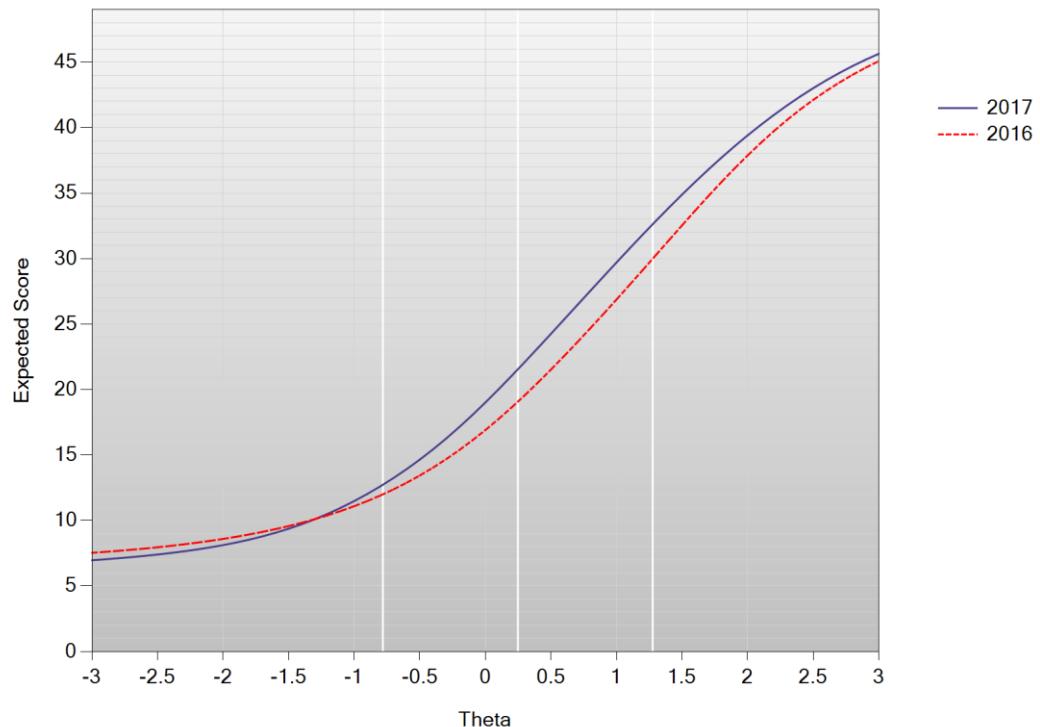
B/B Plot: Mathematics Grade 4



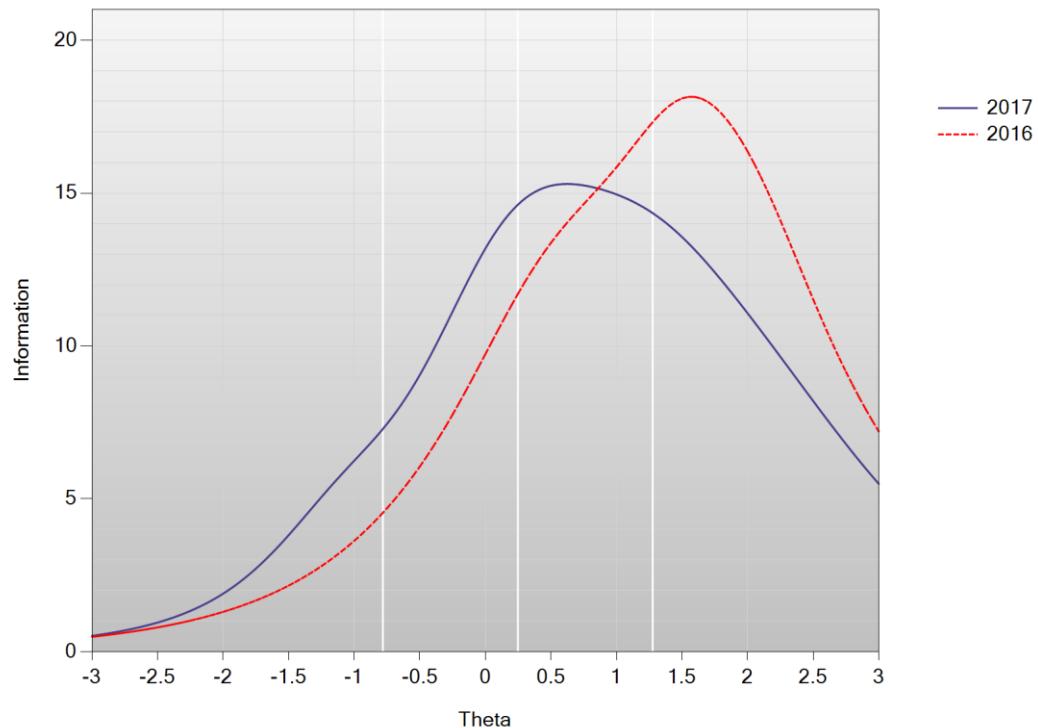
Delta Plot: Mathematics Grade 4



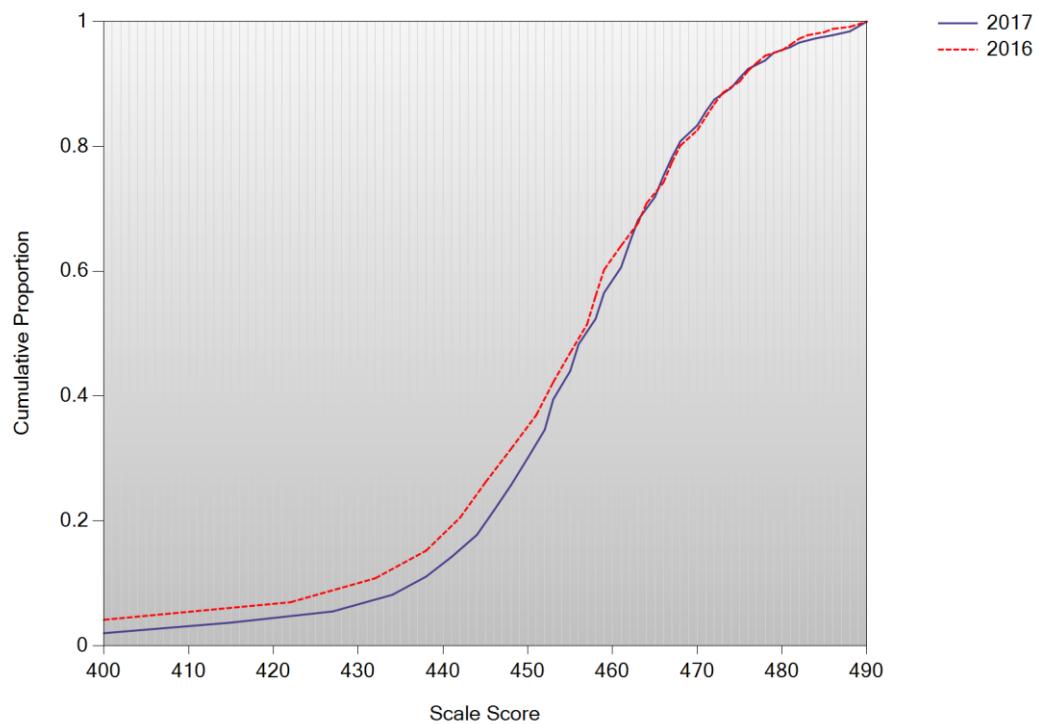
Test Characteristic Curve:Mathematics Grade 4



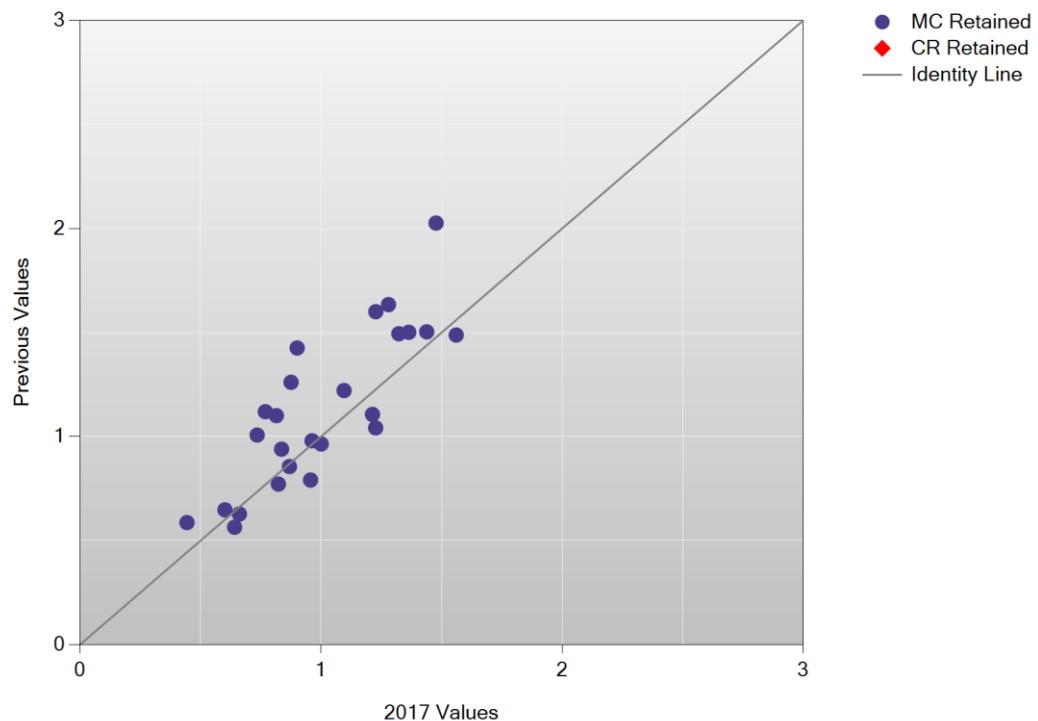
Test Information Function: Mathematics Grade 4



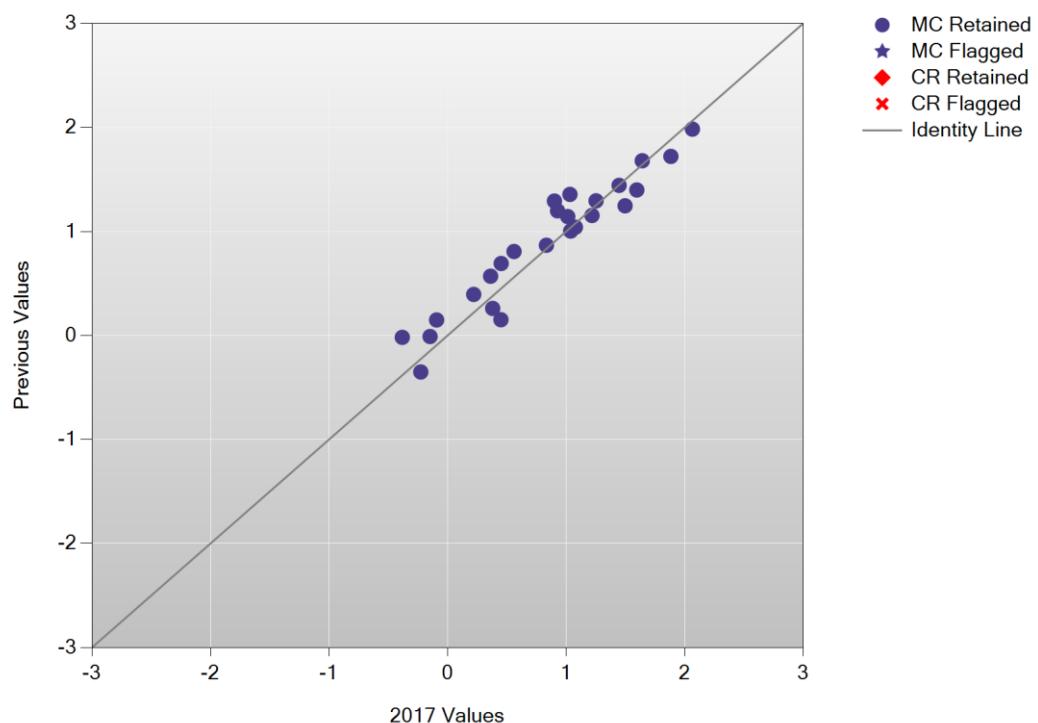
Cumulative Scale Score Distributions: Mathematics Grade 4



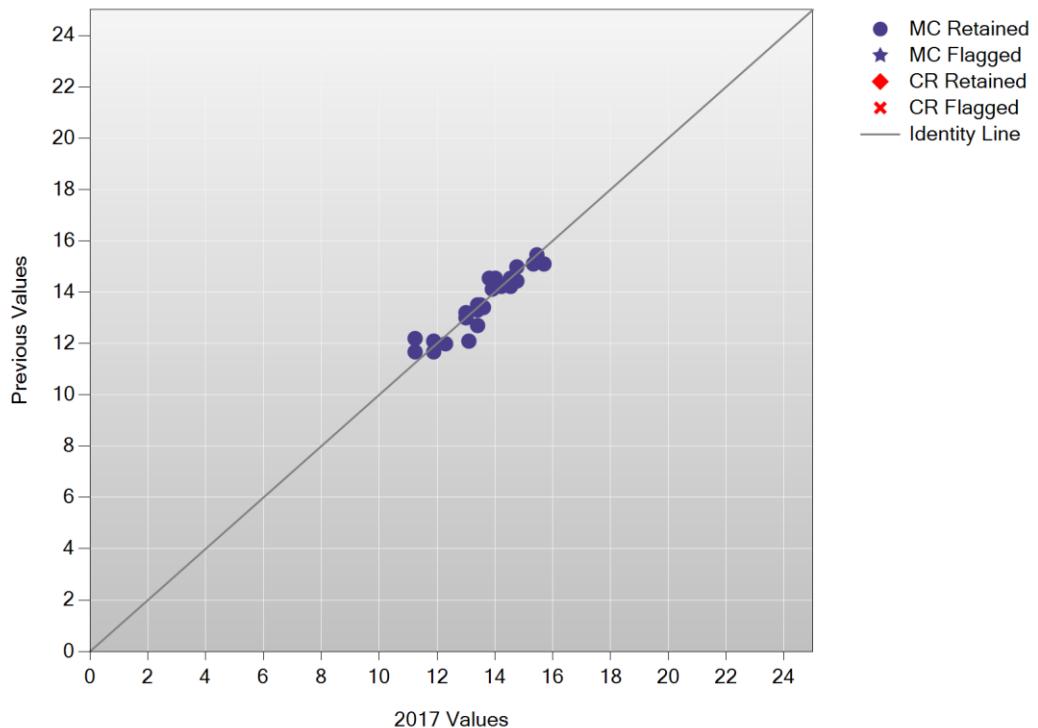
A/A Plot: Mathematics Grade 5



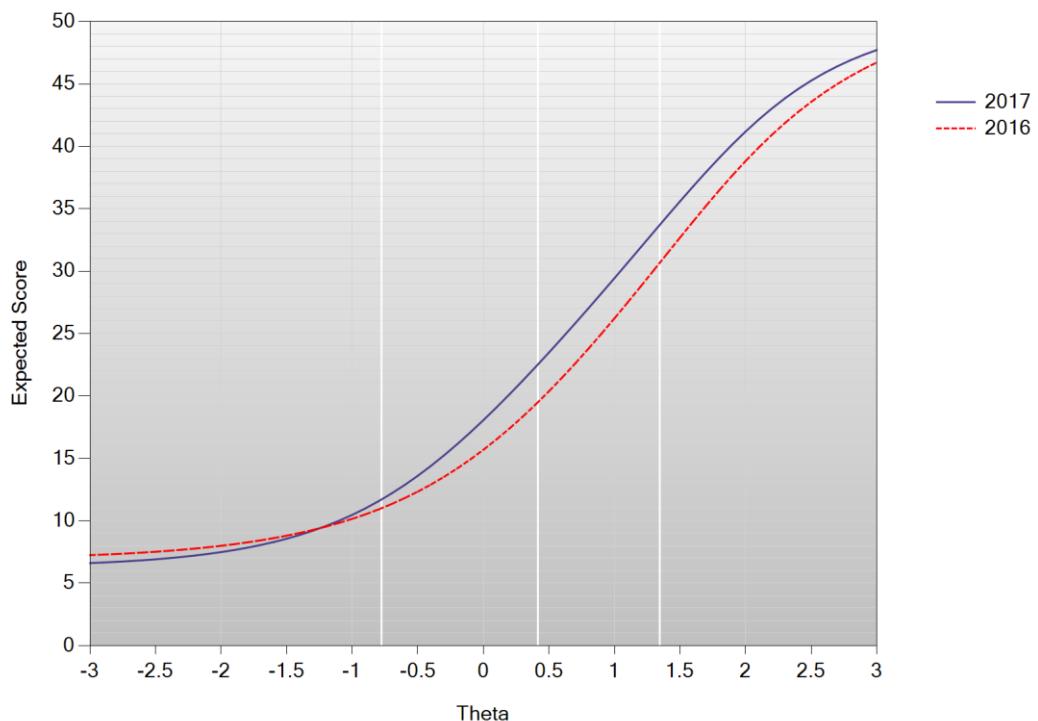
B/B Plot: Mathematics Grade 5



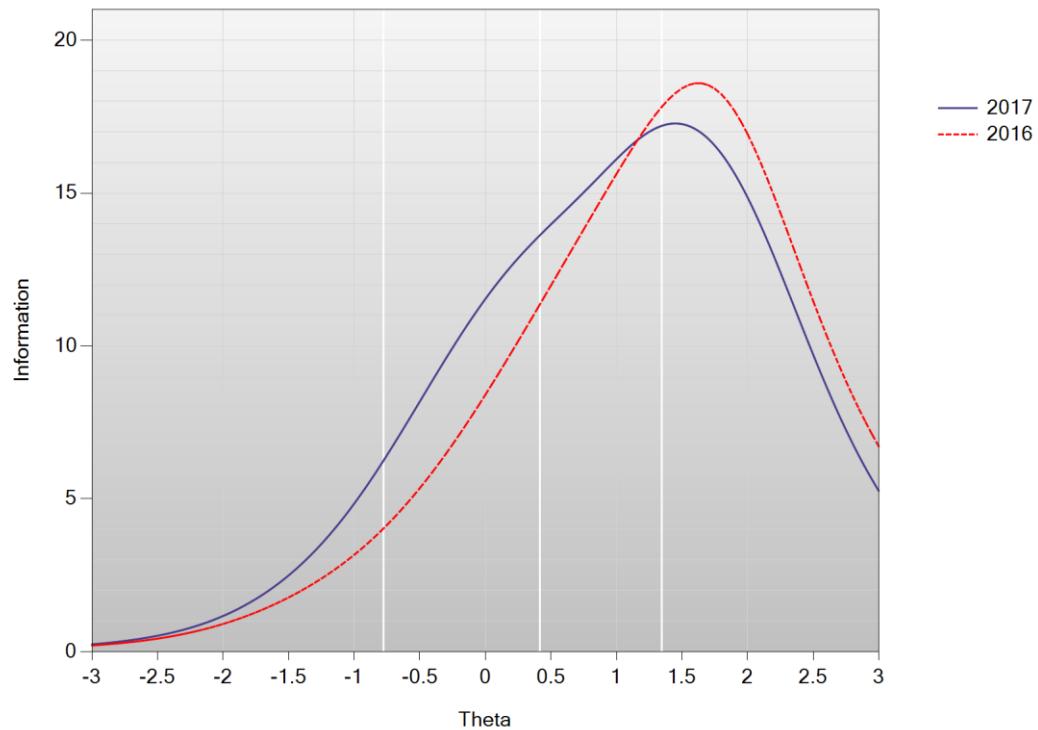
Delta Plot: Mathematics Grade 5



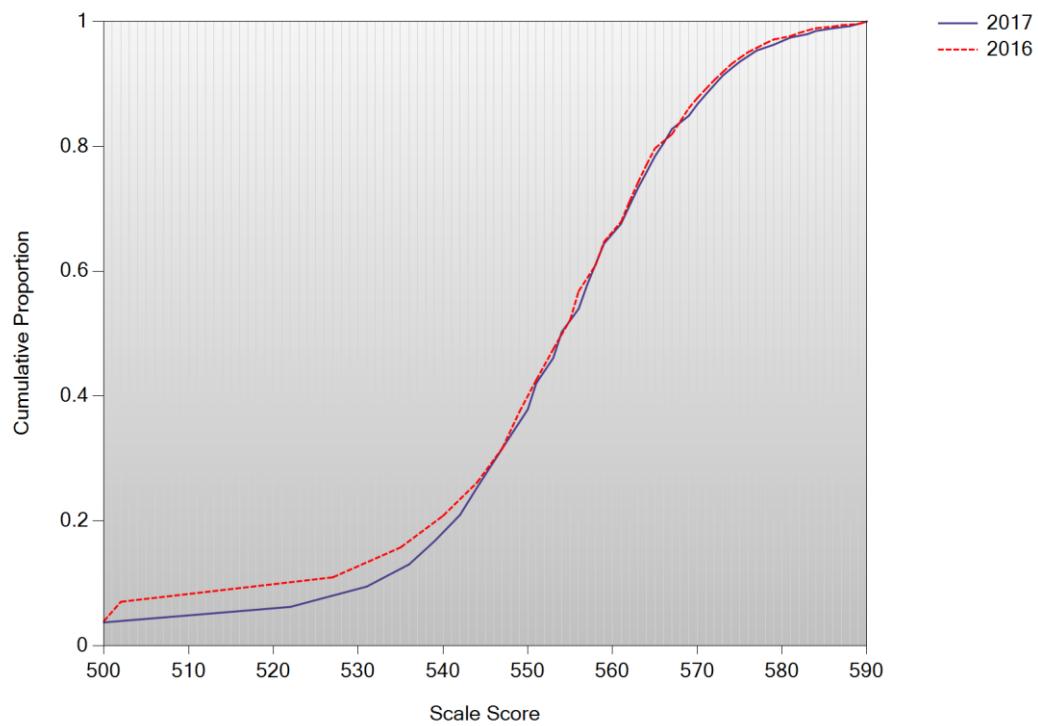
Test Characteristic Curve: Mathematics Grade 5



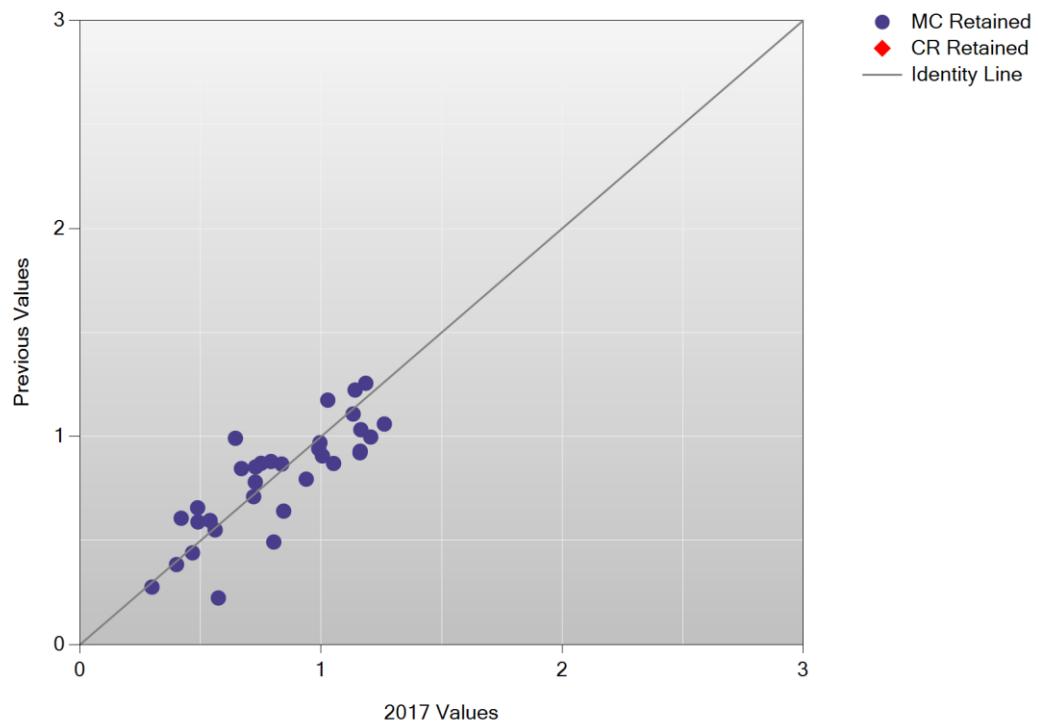
Test Information Function: Mathematics Grade 5



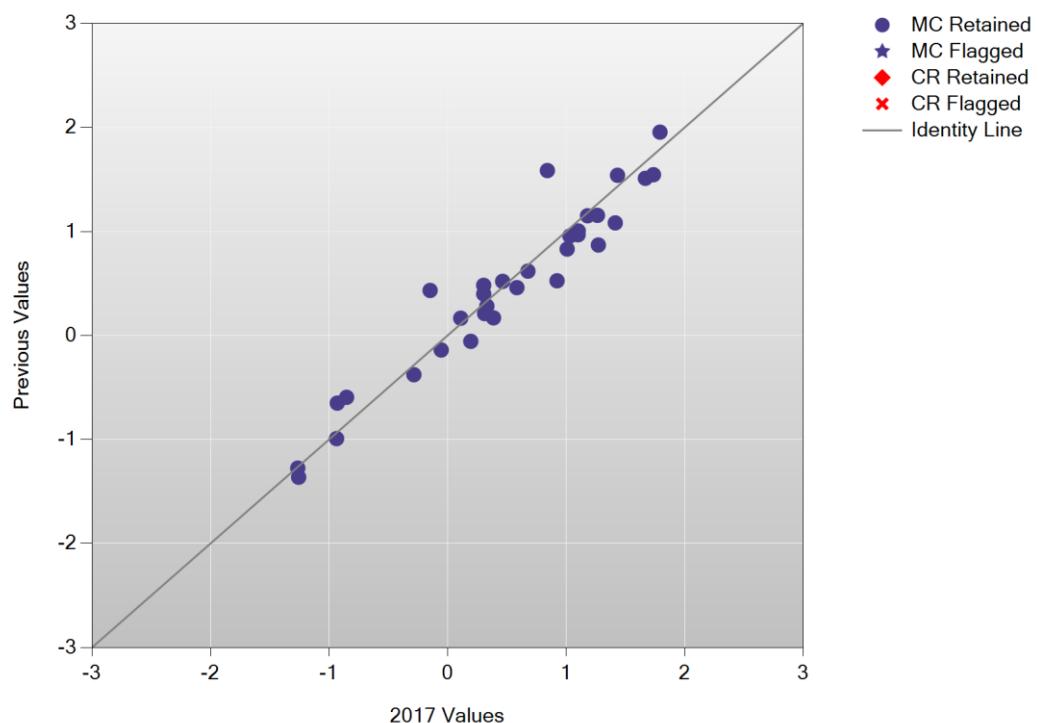
Cumulative Scale Score Distributions: Mathematics Grade 5



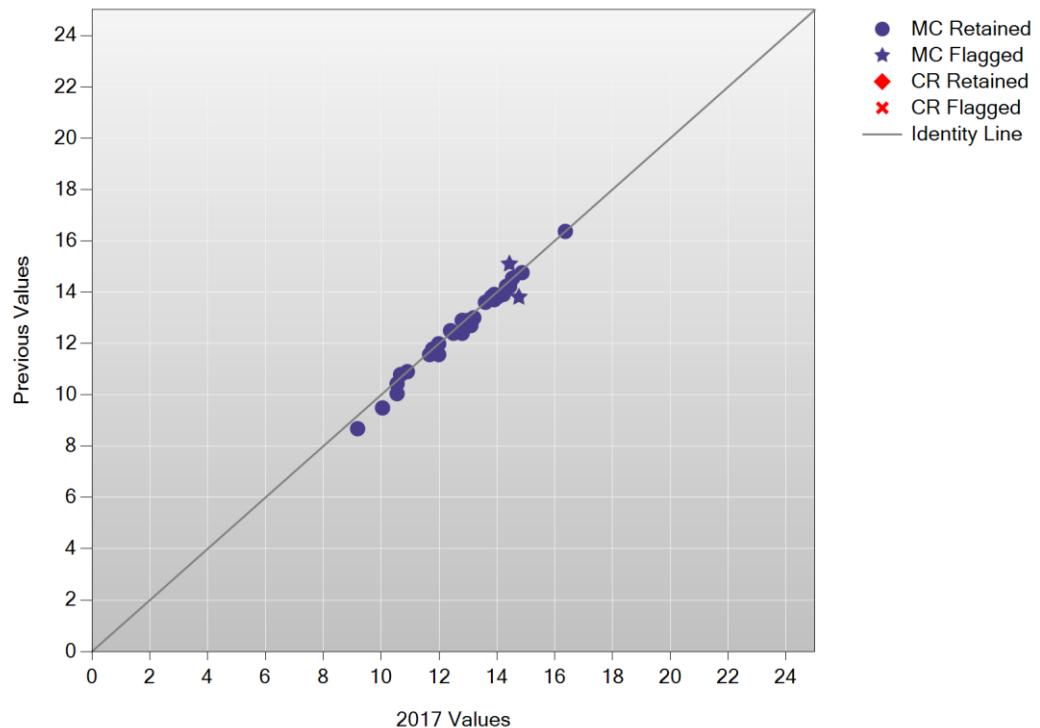
A/A Plot: Mathematics Grade 6



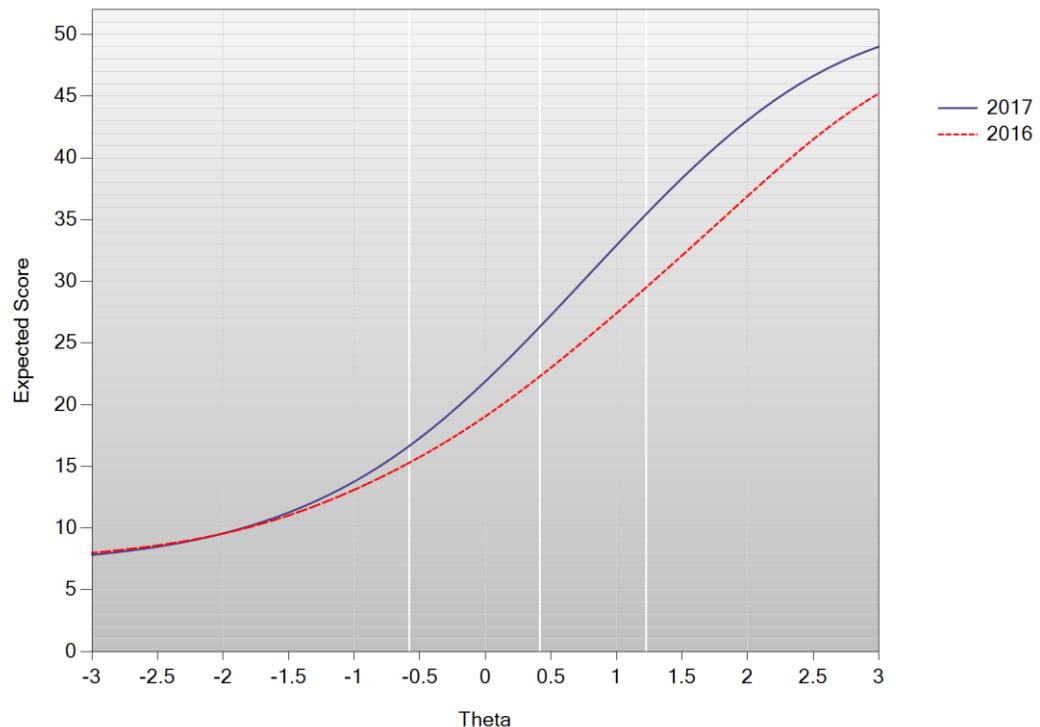
B/B Plot: Mathematics Grade 6



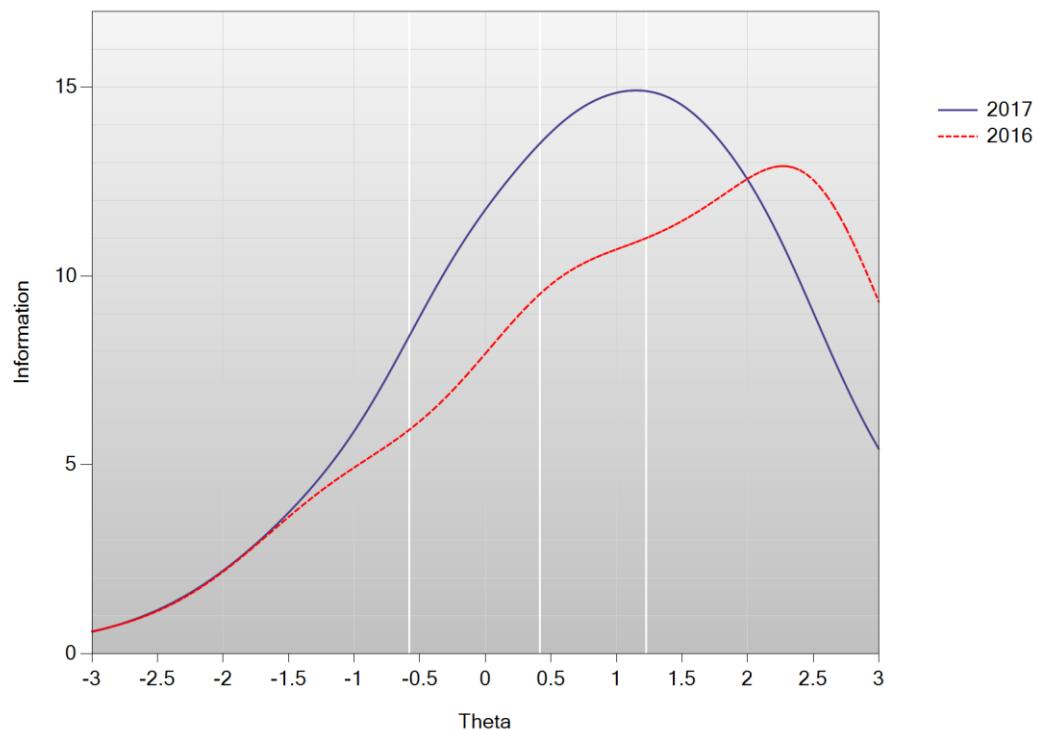
Delta Plot: Mathematics Grade 6



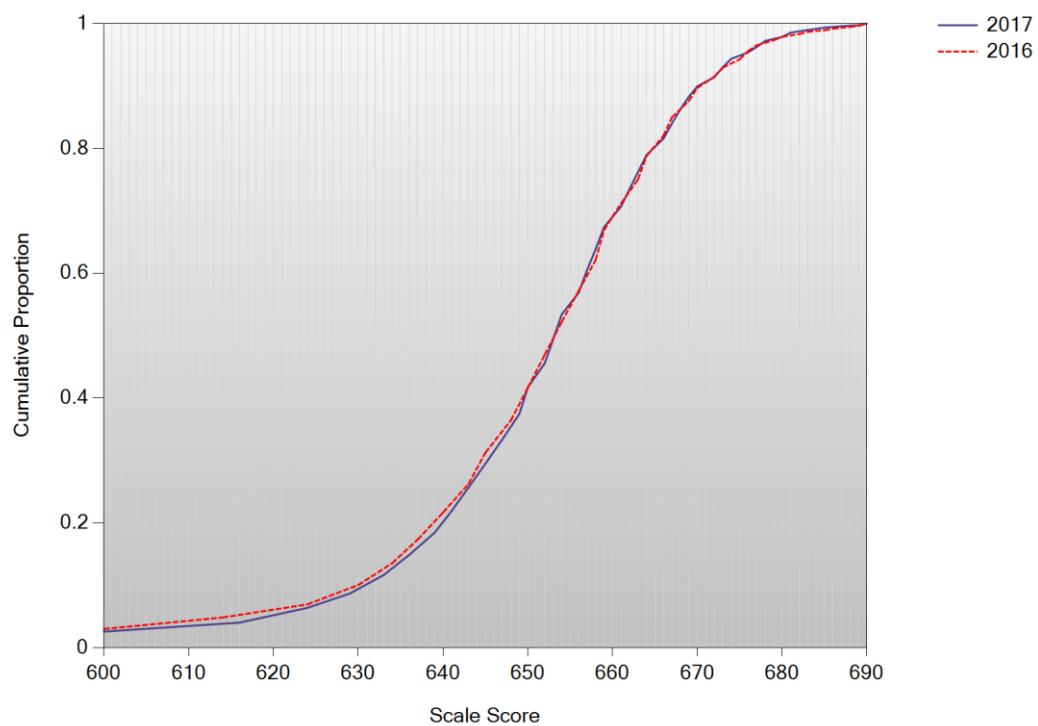
Test Characteristic Curve:Mathematics Grade 6



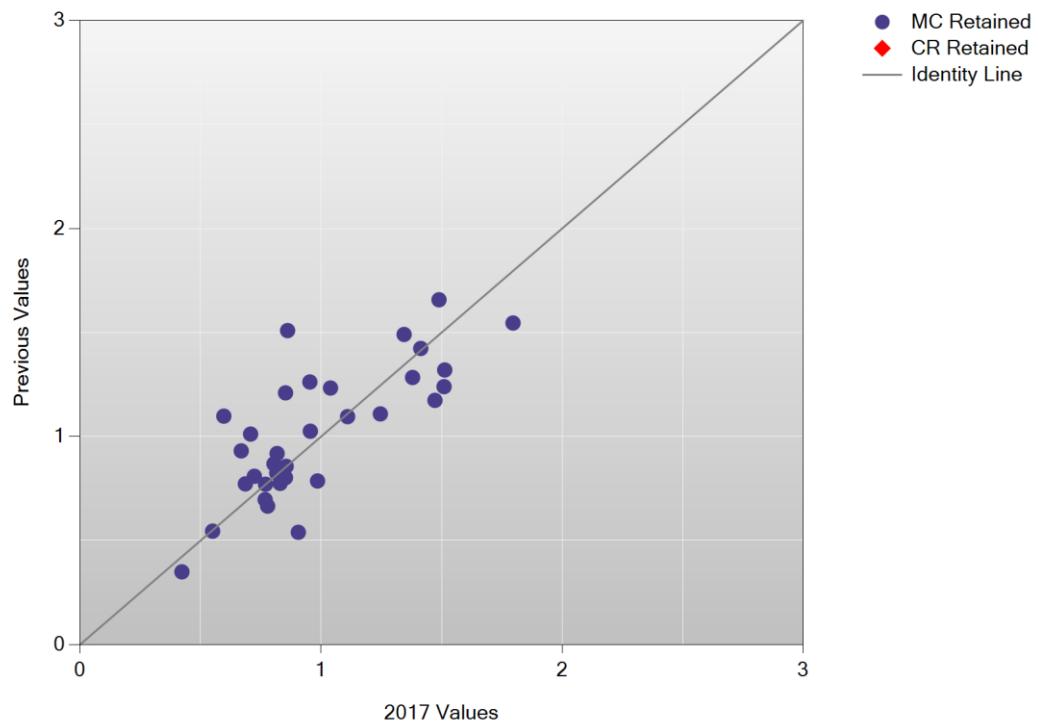
Test Information Function: Mathematics Grade 6



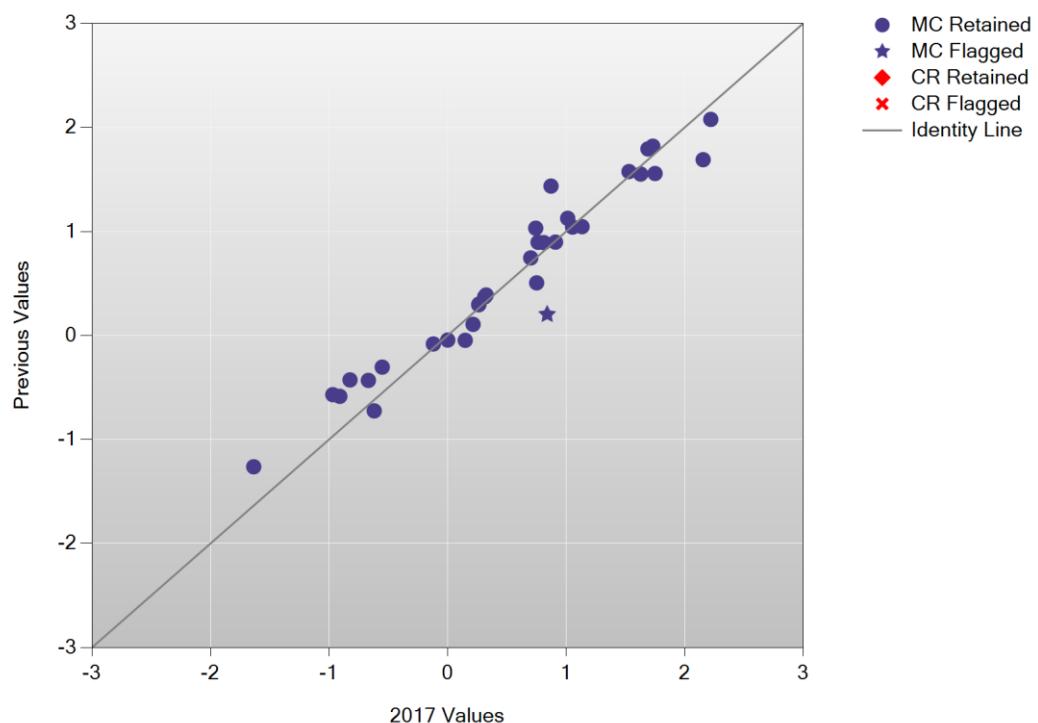
Cumulative Scale Score Distributions: Mathematics Grade 6



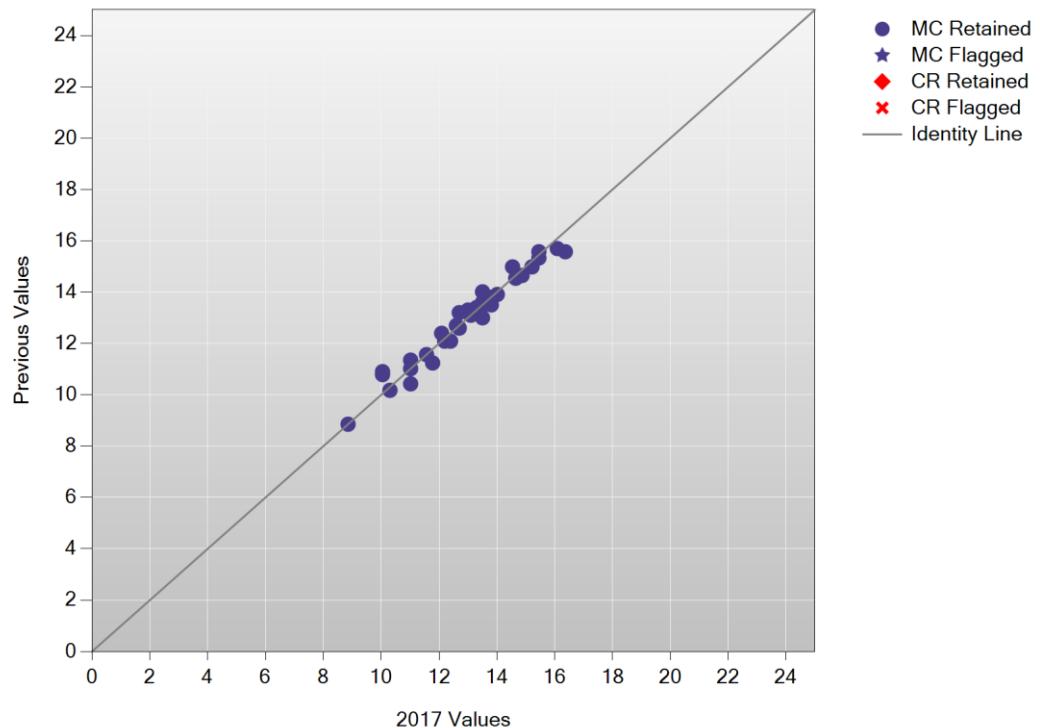
A/A Plot: Mathematics Grade 7



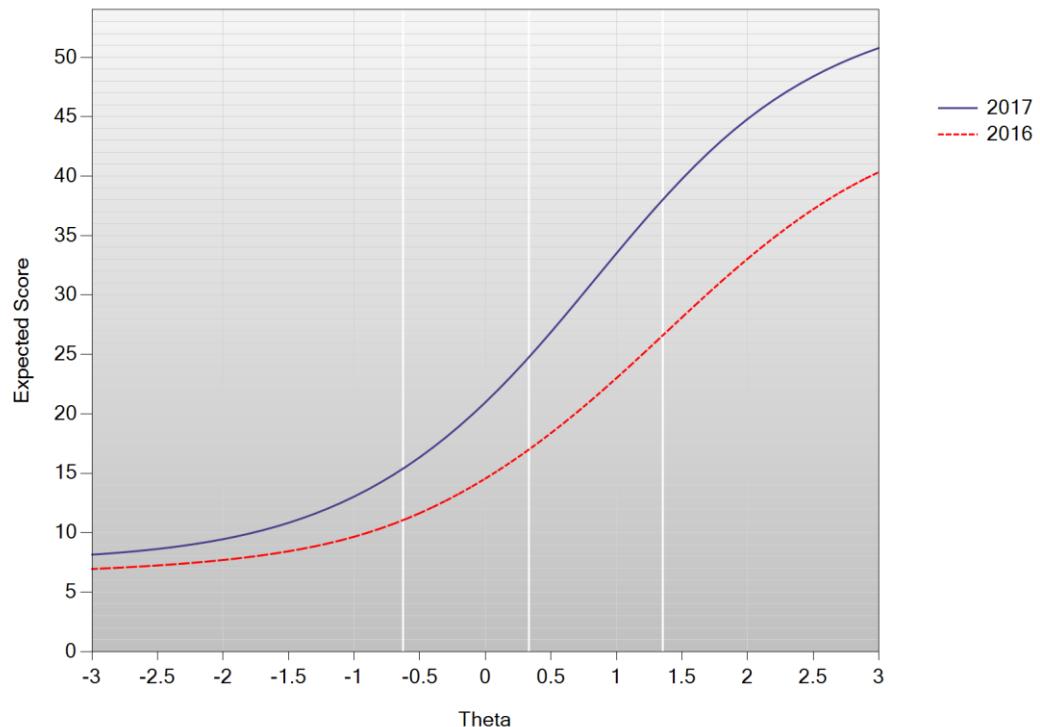
B/B Plot: Mathematics Grade 7



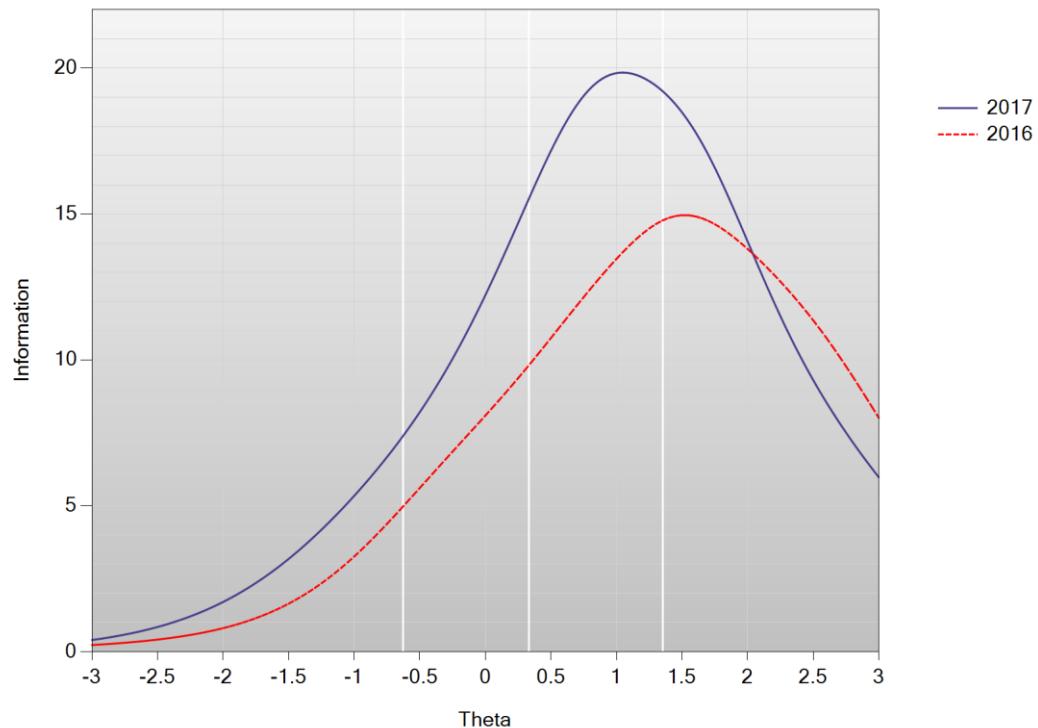
Delta Plot: Mathematics Grade 7



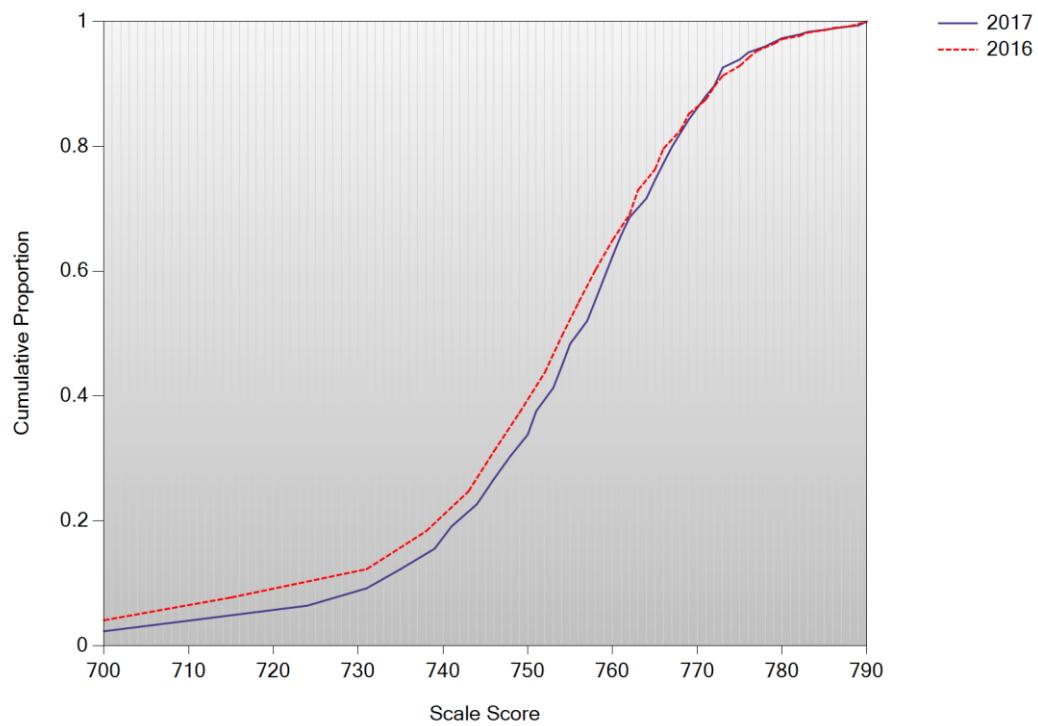
Test Characteristic Curve:Mathematics Grade 7



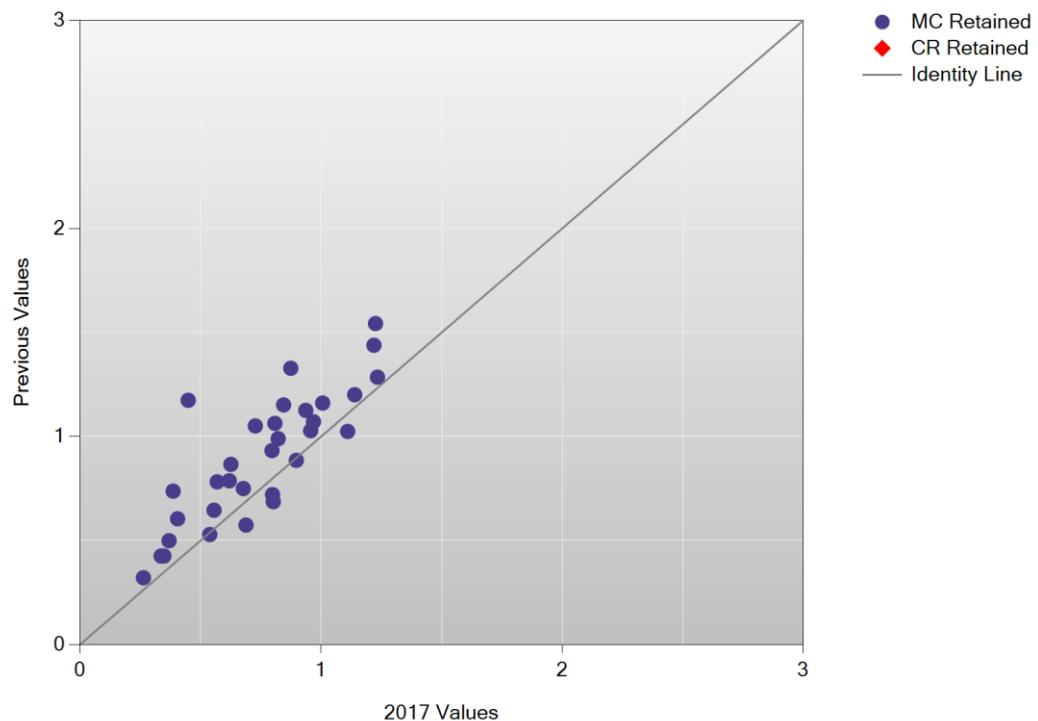
Test Information Function: Mathematics Grade 7



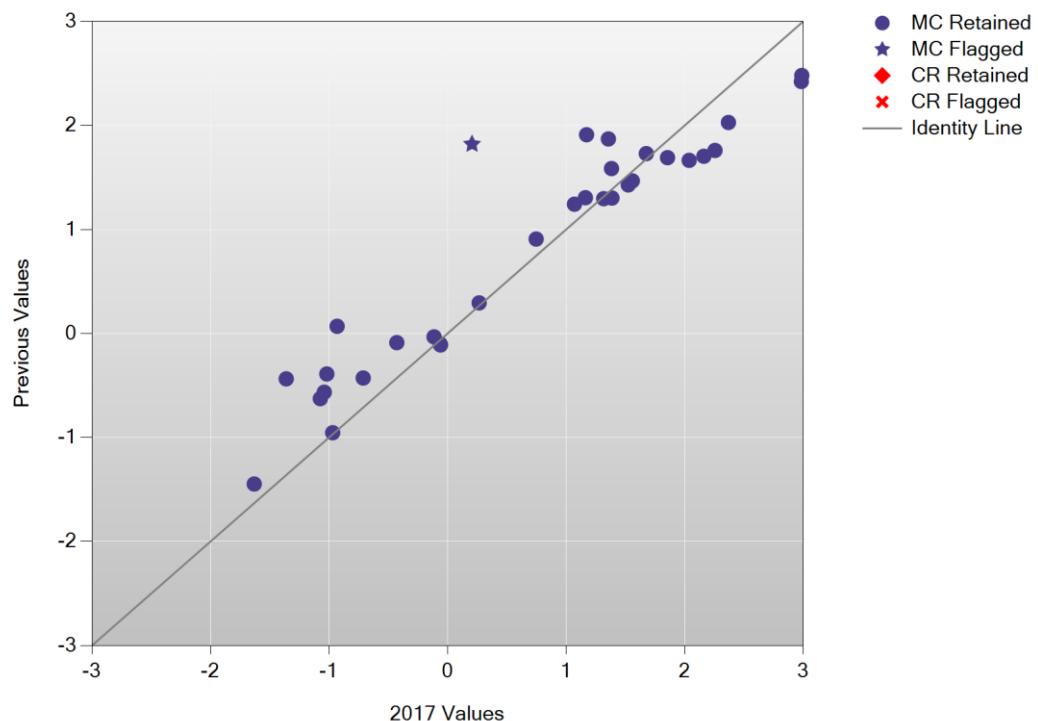
Cumulative Scale Score Distributions: Mathematics Grade 7



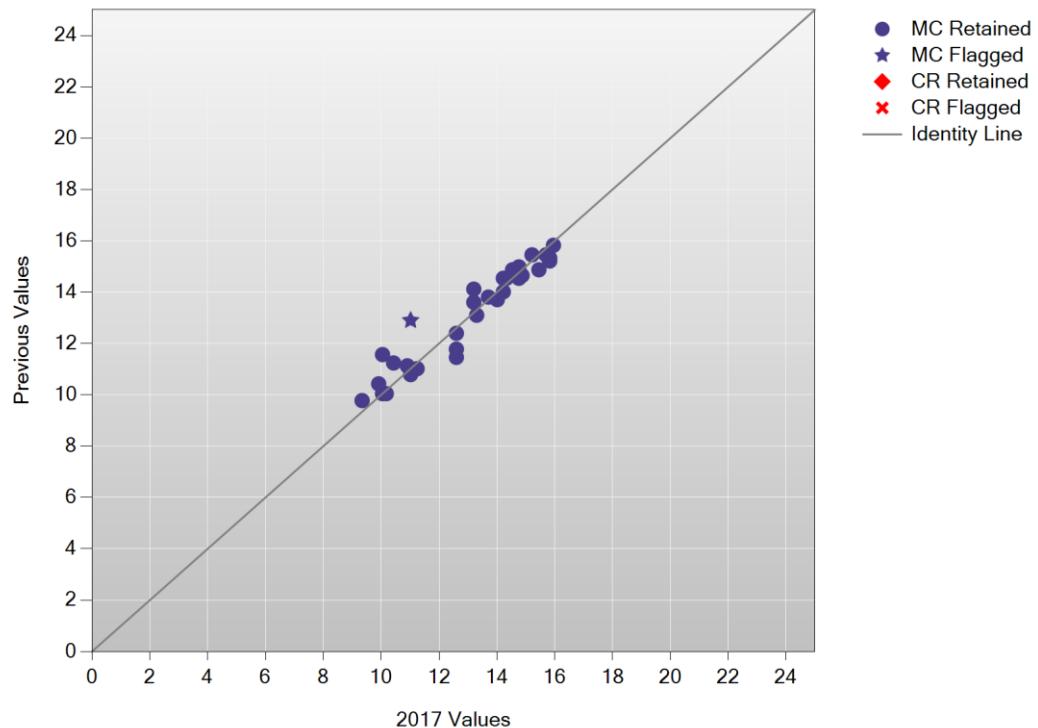
A/A Plot: Mathematics Grade 8



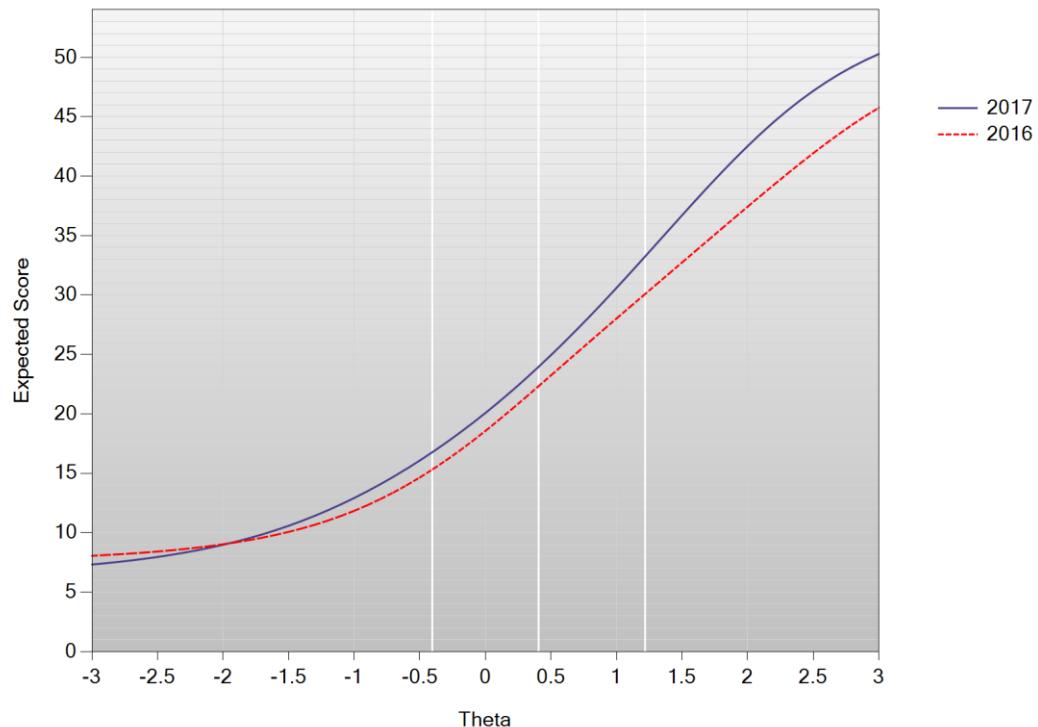
B/B Plot: Mathematics Grade 8



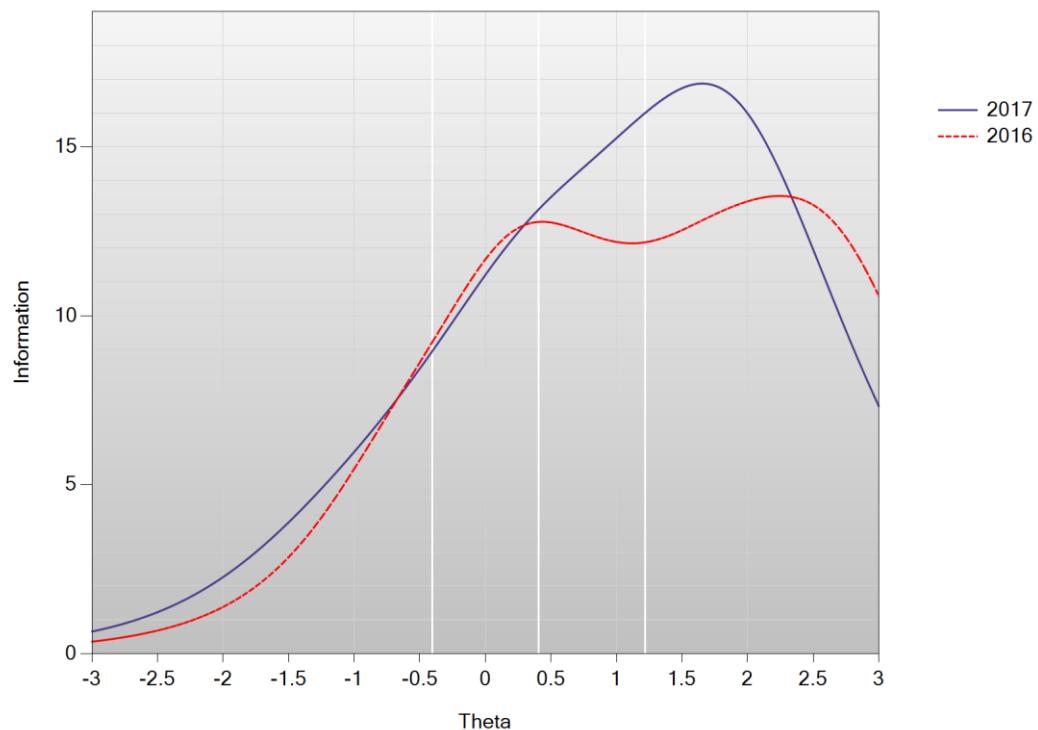
Delta Plot: Mathematics Grade 8



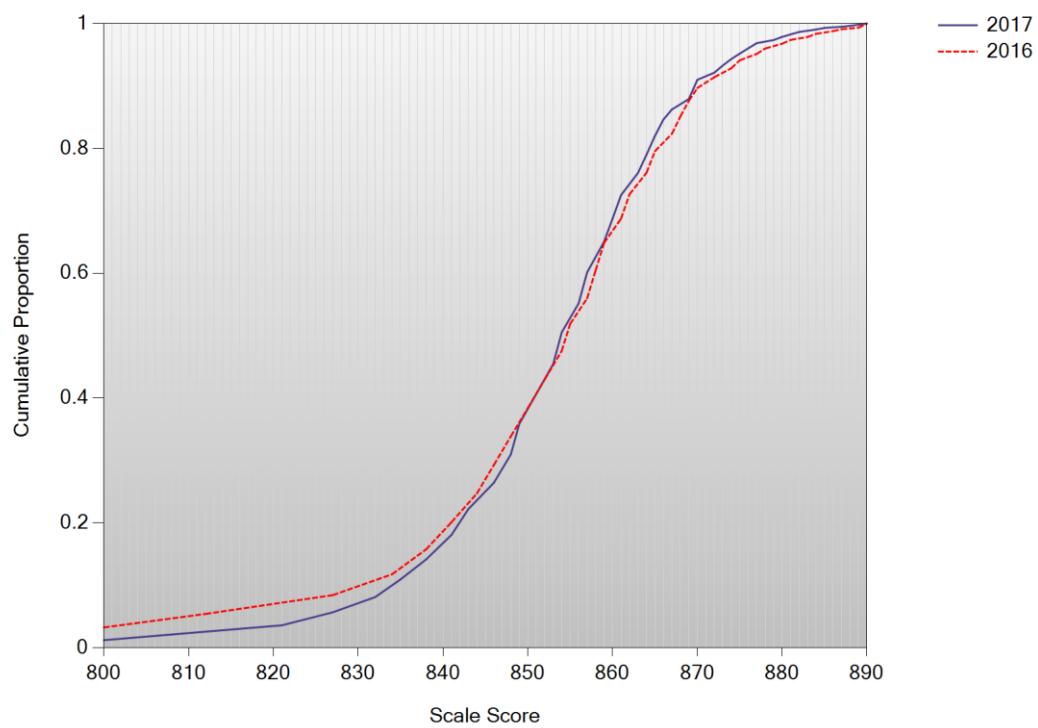
Test Characteristic Curve: Mathematics Grade 8



Test Information Function: Mathematics Grade 8



Cumulative Scale Score Distributions: Mathematics Grade 8



Section 2.2

Lookup Tables

Table 2.2.1
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 3

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-12.025	0.00	10.0	300	300	1	1
1	-10.892	0.00	10.0	300	300	1	1
2	-9.760	0.00	10.0	300	300	1	1
3	-8.628	0.01	10.0	300	300	1	1
4	-7.496	0.02	10.0	300	300	1	1
5	-6.364	0.04	10.0	300	300	1	1
6	-5.231	0.10	10.0	300	300	1	1
7	-4.099	0.26	10.0	300	300	1	1
8	-2.979	0.86	10.0	315	308	1	1
9	-2.453	1.64	10.0	323	320	1	1
10	-2.118	2.59	9.1	328	326	1	1
11	-1.874	3.82	7.5	331	330	1	1
12	-1.682	5.30	6.4	334	333	1	1
13	-1.522	6.86	5.6	337	336	1	1
14	-1.384	8.34	5.1	339	338	1	1
15	-1.261	9.63	4.7	340	340	1	1
16	-1.148	10.70	4.5	342	342	1	1
17	-1.044	11.57	4.3	344	344	1	1
18	-0.946	12.29	4.2	345	345	1	1
19	-0.852	12.89	4.1	346	346	1	1
20	-0.762	13.41	4.0	348	348	2	2
21	-0.676	13.86	4.0	349	349	2	2
22	-0.592	14.26	3.9	350	350	2	2
23	-0.510	14.63	3.9	351	352	2	2
24	-0.430	14.97	3.8	353	353	2	2
25	-0.352	15.29	3.8	354	354	2	2
26	-0.276	15.59	3.7	355	355	2	2
27	-0.200	15.88	3.7	356	356	2	2
28	-0.125	16.16	3.7	357	357	2	2
29	-0.052	16.42	3.6	358	358	2	2
30	0.022	16.67	3.6	359	359	2	2
31	0.094	16.90	3.6	360	360	3	3
32	0.167	17.10	3.6	361	361	3	3
33	0.240	17.25	3.5	362	362	3	3
34	0.312	17.35	3.5	364	363	3	3
35	0.386	17.39	3.5	365	364	3	3
36	0.460	17.36	3.5	366	365	3	3
37	0.534	17.24	3.5	367	367	3	3
38	0.611	17.03	3.6	368	368	3	3

Table 2.2.1 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 3

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	0.689	16.71	3.6	369	369	3	3
40	0.769	16.30	3.7	370	370	3	3
41	0.852	15.77	3.7	372	370	4	3
42	0.938	15.13	3.8	373	372	4	4
43	1.028	14.38	3.9	374	374	4	4
44	1.123	13.54	4.0	376	375	4	4
45	1.224	12.60	4.2	377	376	4	4
46	1.332	11.59	4.3	379	378	4	4
47	1.449	10.55	4.5	380	379	4	4
48	1.576	9.49	4.8	382	381	4	4
49	1.715	8.46	5.1	384	382	4	4
50	1.867	7.50	5.4	386	384	4	4
51	2.036	6.63	5.7	389	386	4	4
52	2.223	5.87	6.1	390	388	4	4
53	2.429	5.21	6.5	390	390	4	4
54	2.658	4.63	6.9	390	390	4	4
55	2.914	4.07	7.3	390	390	4	4
56	3.205	3.50	7.9	390	390	4	4
57	3.543	2.93	8.6	390	390	4	4
58	3.950	2.40	9.5	390	390	4	4
59	4.000	2.35	9.6	390	390	4	4
60	4.000	2.35	9.6	390	390	4	4
61	4.000	2.35	9.6	390	390	4	4
62	N/A	N/A	N/A	N/A	390	N/A	4
63	N/A	N/A	N/A	N/A	390	N/A	4
64	N/A	N/A	N/A	N/A	390	N/A	4

Table 2.2.2
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 4

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-10.082	0.01	10.0	400	400	1	1
1	-9.255	0.01	10.0	400	400	1	1
2	-8.428	0.02	10.0	400	400	1	1
3	-7.601	0.03	10.0	400	400	1	1
4	-6.774	0.05	10.0	400	400	1	1
5	-5.947	0.09	10.0	400	400	1	1
6	-5.120	0.16	10.0	400	400	1	1
7	-4.293	0.30	10.0	400	400	1	1
8	-3.369	0.69	10.0	410	400	1	1
9	-2.776	1.25	10.0	418	400	1	1
10	-2.385	1.91	10.0	424	411	1	1
11	-2.094	2.68	9.2	429	419	1	1
12	-1.862	3.53	8.0	432	424	1	1
13	-1.669	4.43	7.2	435	428	1	1
14	-1.503	5.35	6.5	438	431	1	1
15	-1.356	6.26	6.0	440	434	1	1
16	-1.223	7.15	5.6	442	436	1	1
17	-1.102	7.99	5.3	444	438	1	1
18	-0.989	8.79	5.1	445	440	1	1
19	-0.884	9.53	4.9	447	442	1	1
20	-0.784	10.23	4.7	448	444	1	1
21	-0.689	10.89	4.6	450	445	2	1
22	-0.597	11.50	4.4	451	447	2	1
23	-0.509	12.06	4.3	453	448	2	1
24	-0.424	12.58	4.2	454	450	2	2
25	-0.341	13.06	4.2	455	451	2	2
26	-0.259	13.49	4.1	456	452	2	2
27	-0.179	13.86	4.0	458	454	2	2
28	-0.101	14.17	4.0	459	455	2	2
29	-0.023	14.42	4.0	459	456	2	2
30	0.055	14.59	3.9	461	458	3	2
31	0.132	14.69	3.9	462	459	3	2
32	0.210	14.72	3.9	463	460	3	3
33	0.288	14.67	3.9	465	461	3	3
34	0.366	14.54	3.9	466	462	3	3
35	0.446	14.35	4.0	467	464	3	3
36	0.527	14.09	4.0	468	465	3	3
37	0.609	13.78	4.1	469	466	3	3
38	0.693	13.41	4.1	471	467	3	3

Table 2.2.2 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 4

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	0.780	13.01	4.2	472	469	3	3
40	0.868	12.58	4.2	473	470	3	3
41	0.960	12.13	4.3	475	471	4	3
42	1.055	11.66	4.4	476	473	4	3
43	1.153	11.19	4.5	478	474	4	4
44	1.255	10.71	4.6	479	475	4	4
45	1.361	10.23	4.7	481	477	4	4
46	1.472	9.74	4.8	482	478	4	4
47	1.589	9.24	5.0	484	480	4	4
48	1.712	8.73	5.1	486	481	4	4
49	1.842	8.18	5.3	488	483	4	4
50	1.981	7.60	5.5	490	485	4	4
51	2.130	6.99	5.7	490	487	4	4
52	2.292	6.34	6.0	490	489	4	4
53	2.469	5.65	6.3	490	490	4	4
54	2.667	4.95	6.8	490	490	4	4
55	2.892	4.23	7.3	490	490	4	4
56	3.153	3.50	8.0	490	490	4	4
57	3.467	2.78	9.0	490	490	4	4
58	3.866	2.02	10.0	490	490	4	4
59	4.000	1.80	10.0	490	490	4	4
60	4.000	1.80	10.0	490	490	4	4
61	4.000	1.80	10.0	490	490	4	4
62	N/A	N/A	N/A	N/A	490	N/A	4
63	N/A	N/A	N/A	N/A	490	N/A	4
64	N/A	N/A	N/A	N/A	490	N/A	4

Table 2.2.3
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 5

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-8.713	0.02	10.0	500	500	1	1
1	-8.066	0.03	10.0	500	500	1	1
2	-7.419	0.04	10.0	500	500	1	1
3	-6.771	0.06	10.0	500	500	1	1
4	-6.124	0.10	10.0	500	500	1	1
5	-5.476	0.15	10.0	500	500	1	1
6	-4.829	0.24	10.0	500	500	1	1
7	-4.181	0.40	10.0	500	500	1	1
8	-3.435	0.82	10.0	509	504	1	1
9	-2.924	1.41	10.0	516	513	1	1
10	-2.564	2.07	10.0	522	519	1	1
11	-2.284	2.77	9.1	526	524	1	1
12	-2.054	3.46	8.1	529	528	1	1
13	-1.857	4.14	7.4	532	531	1	1
14	-1.684	4.79	6.9	535	534	1	1
15	-1.528	5.42	6.5	537	536	1	1
16	-1.387	6.03	6.1	539	539	1	1
17	-1.257	6.63	5.9	541	541	1	1
18	-1.136	7.22	5.6	543	542	1	1
19	-1.022	7.81	5.4	545	544	1	1
20	-0.915	8.39	5.2	547	546	1	1
21	-0.813	8.98	5.0	548	547	1	1
22	-0.716	9.55	4.9	550	549	2	2
23	-0.622	10.12	4.7	551	550	2	2
24	-0.532	10.67	4.6	552	552	2	2
25	-0.445	11.20	4.5	554	553	2	2
26	-0.361	11.70	4.4	555	554	2	2
27	-0.278	12.16	4.3	556	555	2	2
28	-0.197	12.58	4.3	557	557	2	2
29	-0.117	12.95	4.2	559	558	2	2
30	-0.038	13.27	4.1	559	559	2	2
31	0.040	13.53	4.1	561	560	3	3
32	0.118	13.73	4.1	562	561	3	3
33	0.195	13.87	4.1	563	562	3	3
34	0.273	13.95	4.0	564	563	3	3
35	0.351	13.97	4.0	566	564	3	3
36	0.429	13.93	4.0	567	566	3	3
37	0.508	13.85	4.1	568	567	3	3
38	0.589	13.71	4.1	569	568	3	3

Table 2.2.3 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 5

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	0.670	13.54	4.1	570	569	3	3
40	0.753	13.33	4.1	572	570	3	3
41	0.838	13.09	4.2	573	571	3	3
42	0.925	12.81	4.2	574	572	3	3
43	1.014	12.51	4.3	575	574	3	3
44	1.106	12.17	4.3	577	575	4	3
45	1.201	11.80	4.4	579	576	4	4
46	1.300	11.39	4.5	580	578	4	4
47	1.403	10.92	4.6	582	579	4	4
48	1.512	10.40	4.7	583	580	4	4
49	1.626	9.80	4.8	585	582	4	4
50	1.748	9.14	5.0	587	583	4	4
51	1.879	8.40	5.2	589	585	4	4
52	2.022	7.59	5.5	590	587	4	4
53	2.179	6.74	5.8	590	589	4	4
54	2.356	5.86	6.2	590	590	4	4
55	2.557	4.97	6.8	590	590	4	4
56	2.793	4.11	7.4	590	590	4	4
57	3.077	3.28	8.3	590	590	4	4
58	3.435	2.47	9.6	590	590	4	4
59	3.935	1.59	10.0	590	590	4	4
60	4.000	1.50	10.0	590	590	4	4
61	4.000	1.50	10.0	590	590	4	4
62	N/A	N/A	N/A	N/A	590	N/A	4
63	N/A	N/A	N/A	N/A	590	N/A	4
64	N/A	N/A	N/A	N/A	590	N/A	4

Table 2.2.4
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 6

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-8.322	0.02	10.0	600	600	1	1
1	-7.734	0.03	10.0	600	600	1	1
2	-7.145	0.05	10.0	600	600	1	1
3	-6.557	0.07	10.0	600	600	1	1
4	-5.968	0.10	10.0	600	600	1	1
5	-5.379	0.16	10.0	600	600	1	1
6	-4.791	0.26	10.0	600	600	1	1
7	-4.202	0.43	10.0	600	600	1	1
8	-3.508	0.85	10.0	607	600	1	1
9	-3.017	1.51	10.0	614	608	1	1
10	-2.680	2.35	9.6	619	614	1	1
11	-2.426	3.35	8.0	623	619	1	1
12	-2.221	4.46	6.9	626	622	1	1
13	-2.049	5.60	6.2	629	625	1	1
14	-1.898	6.70	5.7	631	628	1	1
15	-1.763	7.70	5.3	633	630	1	1
16	-1.640	8.59	5.0	635	632	1	1
17	-1.526	9.34	4.8	636	634	1	1
18	-1.418	9.97	4.6	638	635	1	1
19	-1.315	10.49	4.5	639	637	1	1
20	-1.216	10.91	4.4	641	639	1	1
21	-1.121	11.24	4.4	642	640	1	1
22	-1.029	11.52	4.3	643	641	1	1
23	-0.939	11.74	4.3	645	643	2	1
24	-0.851	11.93	4.2	646	644	2	2
25	-0.764	12.10	4.2	647	645	2	2
26	-0.679	12.25	4.2	649	647	2	2
27	-0.595	12.39	4.2	650	648	2	2
28	-0.512	12.52	4.1	651	649	2	2
29	-0.430	12.65	4.1	652	650	2	2
30	-0.349	12.79	4.1	653	651	2	2
31	-0.268	12.92	4.1	655	653	2	2
32	-0.187	13.05	4.1	656	654	2	2
33	-0.107	13.16	4.0	657	655	2	2
34	-0.026	13.26	4.0	658	656	2	2
35	0.054	13.34	4.0	659	657	2	2
36	0.135	13.39	4.0	661	659	3	2
37	0.217	13.40	4.0	662	659	3	2
38	0.299	13.37	4.0	663	661	3	3

Table 2.2.4 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 6

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	0.382	13.28	4.0	664	662	3	3
40	0.467	13.14	4.0	665	664	3	3
41	0.554	12.94	4.1	667	665	3	3
42	0.643	12.69	4.1	668	666	3	3
43	0.734	12.37	4.2	669	668	3	3
44	0.829	11.99	4.2	671	669	3	3
45	0.927	11.56	4.3	672	671	3	3
46	1.029	11.07	4.4	674	672	3	3
47	1.136	10.53	4.5	675	674	4	3
48	1.249	9.94	4.6	677	675	4	4
49	1.368	9.31	4.8	679	677	4	4
50	1.496	8.65	5.0	680	679	4	4
51	1.634	7.96	5.2	682	681	4	4
52	1.783	7.25	5.4	685	683	4	4
53	1.947	6.51	5.7	687	685	4	4
54	2.129	5.75	6.1	690	687	4	4
55	2.334	4.96	6.6	690	689	4	4
56	2.571	4.16	7.2	690	690	4	4
57	2.850	3.38	8.0	690	690	4	4
58	3.190	2.66	9.0	690	690	4	4
59	3.620	2.04	10.0	690	690	4	4
60	4.000	1.68	10.0	690	690	4	4
61	4.000	1.68	10.0	690	690	4	4
62	4.000	1.68	10.0	690	690	4	4
63	4.000	1.68	10.0	690	690	4	4
64	N/A	N/A	N/A	N/A	690	N/A	4
65	N/A	N/A	N/A	N/A	690	N/A	4
66	N/A	N/A	N/A	N/A	690	N/A	4

Table 2.2.5
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 7

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-8.872	0.01	10.0	700	700	1	1
1	-8.148	0.02	10.0	700	700	1	1
2	-7.424	0.03	10.0	700	700	1	1
3	-6.700	0.05	10.0	700	700	1	1
4	-5.975	0.09	10.0	700	700	1	1
5	-5.251	0.15	10.0	700	700	1	1
6	-4.527	0.28	10.0	700	700	1	1
7	-3.723	0.59	10.0	704	700	1	1
8	-3.054	1.16	10.0	714	700	1	1
9	-2.634	1.82	10.0	720	710	1	1
10	-2.329	2.59	9.1	725	718	1	1
11	-2.090	3.48	7.9	728	723	1	1
12	-1.893	4.47	6.9	731	727	1	1
13	-1.725	5.52	6.3	733	731	1	1
14	-1.577	6.56	5.7	736	734	1	1
15	-1.445	7.55	5.3	738	736	1	1
16	-1.324	8.44	5.1	739	738	1	1
17	-1.211	9.22	4.8	741	740	1	1
18	-1.105	9.89	4.7	743	742	1	1
19	-1.005	10.48	4.5	744	744	1	1
20	-0.910	10.99	4.4	745	745	2	2
21	-0.818	11.45	4.3	747	747	2	2
22	-0.729	11.86	4.3	748	748	2	2
23	-0.643	12.22	4.2	749	750	2	2
24	-0.559	12.55	4.1	751	751	2	2
25	-0.477	12.85	4.1	752	752	2	2
26	-0.396	13.11	4.1	753	754	2	2
27	-0.317	13.35	4.0	754	755	2	2
28	-0.239	13.55	4.0	755	756	2	2
29	-0.162	13.73	4.0	756	757	2	2
30	-0.085	13.87	3.9	757	758	2	2
31	-0.009	14.00	3.9	759	759	2	2
32	0.066	14.09	3.9	759	760	2	3
33	0.142	14.16	3.9	761	761	3	3
34	0.217	14.21	3.9	762	762	3	3
35	0.293	14.23	3.9	763	764	3	3
36	0.369	14.23	3.9	764	765	3	3
37	0.446	14.21	3.9	765	766	3	3
38	0.523	14.17	3.9	766	767	3	3

Table 2.2.5 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 7

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	0.602	14.09	3.9	768	768	3	3
40	0.681	13.99	3.9	769	769	3	3
41	0.762	13.84	3.9	770	770	3	3
42	0.845	13.65	4.0	771	771	3	3
43	0.929	13.40	4.0	772	772	3	3
44	1.016	13.08	4.1	774	774	3	3
45	1.106	12.70	4.1	775	775	3	3
46	1.199	12.25	4.2	776	776	4	4
47	1.295	11.73	4.3	778	777	4	4
48	1.397	11.17	4.4	779	779	4	4
49	1.503	10.57	4.5	781	780	4	4
50	1.615	9.96	4.7	782	782	4	4
51	1.734	9.33	4.8	784	783	4	4
52	1.861	8.71	5.0	786	785	4	4
53	1.996	8.10	5.2	788	787	4	4
54	2.142	7.48	5.4	790	789	4	4
55	2.300	6.87	5.6	790	790	4	4
56	2.472	6.24	5.9	790	790	4	4
57	2.662	5.60	6.2	790	790	4	4
58	2.877	4.94	6.6	790	790	4	4
59	3.124	4.25	7.1	790	790	4	4
60	3.423	3.47	7.9	790	790	4	4
61	3.817	2.48	9.3	790	790	4	4
62	4.000	2.07	10.0	790	790	4	4
63	4.000	2.07	10.0	790	790	4	4
64	N/A	N/A	N/A	N/A	790	N/A	4

Table 2.2.6
Raw Score to Scale Score Lookup Table
English Language Arts Grade 8

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-8.654	0.01	10.0	800	800	1	1
1	-7.980	0.02	10.0	800	800	1	1
2	-7.305	0.03	10.0	800	800	1	1
3	-6.630	0.05	10.0	800	800	1	1
4	-5.955	0.09	10.0	800	800	1	1
5	-5.281	0.17	10.0	800	800	1	1
6	-4.606	0.32	10.0	800	800	1	1
7	-3.894	0.64	10.0	802	800	1	1
8	-3.184	1.30	10.0	812	800	1	1
9	-2.752	2.02	10.0	818	808	1	1
10	-2.439	2.79	8.9	823	814	1	1
11	-2.193	3.58	7.8	827	819	1	1
12	-1.989	4.38	7.1	830	822	1	1
13	-1.814	5.19	6.5	832	825	1	1
14	-1.661	5.99	6.0	835	828	1	1
15	-1.523	6.78	5.7	837	830	1	1
16	-1.398	7.55	5.4	838	832	1	1
17	-1.283	8.30	5.1	840	834	1	1
18	-1.175	9.04	4.9	842	836	1	1
19	-1.075	9.75	4.7	843	837	1	1
20	-0.979	10.44	4.6	845	839	2	1
21	-0.888	11.10	4.4	846	840	2	1
22	-0.801	11.73	4.3	847	841	2	1
23	-0.717	12.33	4.2	849	843	2	1
24	-0.635	12.88	4.1	850	844	2	2
25	-0.556	13.38	4.0	851	845	2	2
26	-0.478	13.83	4.0	852	846	2	2
27	-0.401	14.22	3.9	853	848	2	2
28	-0.326	14.54	3.9	854	849	2	2
29	-0.251	14.80	3.8	855	850	2	2
30	-0.177	14.99	3.8	857	851	2	2
31	-0.104	15.13	3.8	858	852	2	2
32	-0.030	15.20	3.8	859	853	2	2
33	0.044	15.23	3.8	859	854	2	2
34	0.118	15.21	3.8	861	855	3	2
35	0.193	15.14	3.8	862	856	3	2
36	0.268	15.04	3.8	863	857	3	2
37	0.344	14.90	3.8	864	859	3	2
38	0.421	14.73	3.9	865	859	3	2

Table 2.2.6 (continued)
 Raw Score to Scale Score Lookup Table
 English Language Arts Grade 8

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	0.500	14.53	3.9	867	861	3	3
40	0.579	14.29	3.9	868	862	3	3
41	0.660	14.03	3.9	869	863	3	3
42	0.743	13.73	4.0	870	865	3	3
43	0.829	13.40	4.0	871	866	3	3
44	0.916	13.05	4.1	873	867	3	3
45	1.006	12.66	4.2	874	868	3	3
46	1.099	12.24	4.2	875	870	3	3
47	1.196	11.80	4.3	877	871	3	3
48	1.296	11.33	4.4	878	873	4	3
49	1.402	10.83	4.5	880	874	4	3
50	1.512	10.30	4.6	882	876	4	3
51	1.628	9.74	4.7	883	878	4	4
52	1.752	9.14	4.9	885	880	4	4
53	1.884	8.51	5.1	887	882	4	4
54	2.026	7.85	5.3	889	884	4	4
55	2.180	7.16	5.5	890	887	4	4
56	2.349	6.46	5.8	890	889	4	4
57	2.538	5.73	6.2	890	890	4	4
58	2.755	4.95	6.6	890	890	4	4
59	3.013	4.06	7.3	890	890	4	4
60	3.342	2.98	8.6	890	890	4	4
61	3.824	1.73	10.0	890	890	4	4
62	4.000	1.39	10.0	890	890	4	4
63	4.000	1.39	10.0	890	890	4	4
64	N/A	N/A	N/A	N/A	890	N/A	4
65	N/A	N/A	N/A	N/A	890	N/A	4
66	N/A	N/A	N/A	N/A	890	N/A	4

Table 2.2.7
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 3

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-15.592	0.00	10.0	300	300	1	1
1	-13.839	0.00	10.0	300	300	1	1
2	-12.086	0.00	10.0	300	300	1	1
3	-10.334	0.00	10.0	300	300	1	1
4	-8.581	0.00	10.0	300	300	1	1
5	-6.828	0.01	10.0	300	300	1	1
6	-5.075	0.04	10.0	300	300	1	1
7	-3.216	0.34	10.0	311	324	1	1
8	-2.414	1.32	10.0	323	332	1	1
9	-2.005	2.54	9.2	329	337	1	1
10	-1.724	3.79	7.5	333	340	1	1
11	-1.504	4.97	6.6	337	343	1	1
12	-1.320	6.05	5.9	339	346	1	1
13	-1.160	7.01	5.5	342	348	1	2
14	-1.016	7.85	5.2	344	350	1	2
15	-0.885	8.57	5.0	346	352	1	2
16	-0.762	9.19	4.8	347	354	2	2
17	-0.647	9.73	4.7	349	355	2	2
18	-0.536	10.19	4.6	351	357	2	2
19	-0.430	10.60	4.5	352	359	2	2
20	-0.328	10.96	4.4	354	360	2	3
21	-0.228	11.30	4.3	355	362	2	3
22	-0.131	11.62	4.3	357	363	2	3
23	-0.036	11.92	4.2	358	365	2	3
24	0.058	12.21	4.2	359	366	2	3
25	0.150	12.47	4.1	361	368	3	3
26	0.241	12.72	4.1	362	369	3	3
27	0.331	12.94	4.1	363	370	3	3
28	0.421	13.13	4.0	365	372	3	3
29	0.510	13.28	4.0	366	373	3	3
30	0.599	13.39	4.0	367	375	3	3
31	0.689	13.45	4.0	369	376	3	3
32	0.779	13.46	4.0	370	378	3	4
33	0.870	13.41	4.0	371	380	3	4
34	0.962	13.30	4.0	373	381	3	4
35	1.056	13.13	4.0	374	383	3	4
36	1.153	12.90	4.1	375	385	3	4
37	1.252	12.59	4.1	377	386	3	4
38	1.355	12.22	4.2	378	388	4	4

Table 2.2.7 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 3

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	1.462	11.78	4.3	380	390	4	4
40	1.574	11.26	4.4	382	390	4	4
41	1.693	10.67	4.5	383	390	4	4
42	1.821	10.02	4.6	385	390	4	4
43	1.958	9.29	4.8	387	390	4	4
44	2.109	8.48	5.0	389	390	4	4
45	2.277	7.60	5.3	390	390	4	4
46	2.469	6.61	5.7	390	390	4	4
47	2.697	5.46	6.3	390	390	4	4
48	2.986	4.11	7.2	390	390	4	4
49	3.400	2.58	9.1	390	N/A	4	N/A
50	4.000	1.28	10.0	390	N/A	4	N/A
51	4.000	1.28	10.0	390	N/A	4	N/A

Table 2.2.8
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 4

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-18.199	0.00	10.0	400	400	1	1
1	-16.017	0.00	10.0	400	400	1	1
2	-13.836	0.00	10.0	400	400	1	1
3	-11.654	0.00	10.0	400	400	1	1
4	-9.473	0.00	10.0	400	400	1	1
5	-7.291	0.01	10.0	400	400	1	1
6	-5.110	0.06	10.0	400	400	1	1
7	-2.953	0.54	10.0	415	400	1	1
8	-2.069	1.72	10.0	427	422	1	1
9	-1.623	3.24	7.8	434	432	1	1
10	-1.326	4.68	6.5	438	438	1	1
11	-1.097	5.80	5.9	441	442	1	1
12	-0.906	6.68	5.5	444	445	1	2
13	-0.739	7.51	5.2	446	448	2	2
14	-0.590	8.41	4.9	448	451	2	2
15	-0.455	9.40	4.6	450	453	2	2
16	-0.330	10.43	4.4	452	455	2	2
17	-0.214	11.43	4.2	453	457	2	2
18	-0.105	12.36	4.0	455	458	2	2
19	-0.001	13.18	3.9	456	459	2	2
20	0.099	13.85	3.8	458	461	2	3
21	0.196	14.39	3.7	459	463	2	3
22	0.291	14.78	3.7	461	464	3	3
23	0.384	15.05	3.6	462	466	3	3
24	0.476	15.21	3.6	463	467	3	3
25	0.568	15.29	3.6	465	468	3	3
26	0.660	15.30	3.6	466	470	3	3
27	0.751	15.25	3.6	467	471	3	3
28	0.843	15.17	3.6	468	472	3	3
29	0.935	15.06	3.6	470	473	3	3
30	1.027	14.91	3.7	471	475	3	4
31	1.121	14.73	3.7	472	476	3	4
32	1.216	14.51	3.7	474	477	3	4
33	1.312	14.24	3.7	475	478	4	4
34	1.410	13.91	3.8	476	480	4	4
35	1.511	13.52	3.8	478	481	4	4
36	1.615	13.06	3.9	479	482	4	4
37	1.722	12.55	4.0	481	483	4	4
38	1.834	11.97	4.1	482	485	4	4

Table 2.2.8 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 4

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	1.950	11.34	4.2	484	486	4	4
40	2.073	10.66	4.3	486	488	4	4
41	2.204	9.91	4.5	488	490	4	4
42	2.345	9.10	4.7	490	490	4	4
43	2.498	8.21	4.9	490	490	4	4
44	2.667	7.24	5.2	490	490	4	4
45	2.860	6.20	5.7	490	490	4	4
46	3.087	5.07	6.3	490	490	4	4
47	3.369	3.87	7.2	490	490	4	4
48	3.752	2.59	8.8	490	490	4	4
49	4.000	1.97	10.0	490	490	4	4
50	4.000	1.97	10.0	490	490	4	4

Table 2.2.9
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 5

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-29.848	0.00	10.0	500	500	1	1
1	-25.782	0.00	10.0	500	500	1	1
2	-21.716	0.00	10.0	500	500	1	1
3	-17.650	0.00	10.0	500	500	1	1
4	-13.584	0.00	10.0	500	500	1	1
5	-9.517	0.00	10.0	500	500	1	1
6	-5.451	0.01	10.0	500	500	1	1
7	-2.393	0.61	10.0	522	502	1	1
8	-1.722	1.80	10.0	531	527	1	1
9	-1.357	3.05	7.8	536	535	1	1
10	-1.100	4.28	6.6	539	540	1	1
11	-0.898	5.46	5.8	542	544	1	2
12	-0.729	6.57	5.3	544	547	2	2
13	-0.581	7.60	4.9	546	549	2	2
14	-0.449	8.55	4.6	548	551	2	2
15	-0.327	9.41	4.4	550	553	2	2
16	-0.214	10.18	4.3	551	555	2	2
17	-0.107	10.88	4.1	553	556	2	2
18	-0.006	11.50	4.0	554	558	2	2
19	0.092	12.06	3.9	556	559	2	2
20	0.187	12.56	3.8	557	561	2	3
21	0.280	13.01	3.8	558	562	2	3
22	0.370	13.42	3.7	559	563	2	3
23	0.458	13.80	3.7	561	564	3	3
24	0.545	14.17	3.6	562	565	3	3
25	0.631	14.52	3.6	563	567	3	3
26	0.716	14.88	3.5	564	568	3	3
27	0.799	15.24	3.5	565	569	3	3
28	0.882	15.60	3.4	566	570	3	3
29	0.964	15.96	3.4	567	571	3	3
30	1.046	16.30	3.4	569	572	3	3
31	1.127	16.62	3.3	570	573	3	4
32	1.207	16.89	3.3	571	574	3	4
33	1.288	17.10	3.3	572	575	3	4
34	1.369	17.23	3.3	573	576	4	4
35	1.451	17.28	3.3	574	577	4	4
36	1.533	17.22	3.3	575	578	4	4
37	1.617	17.05	3.3	576	579	4	4
38	1.703	16.76	3.3	577	581	4	4

Table 2.2.9 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 5

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	1.792	16.33	3.4	579	582	4	4
40	1.884	15.76	3.4	580	583	4	4
41	1.981	15.01	3.5	581	584	4	4
42	2.085	14.09	3.6	583	586	4	4
43	2.196	12.97	3.8	584	587	4	4
44	2.320	11.66	4.0	586	589	4	4
45	2.459	10.15	4.3	588	590	4	4
46	2.622	8.46	4.7	590	590	4	4
47	2.822	6.63	5.3	590	590	4	4
48	3.083	4.71	6.3	590	590	4	4
49	3.471	2.77	8.2	590	590	4	4
50	4.000	1.32	10.0	590	590	4	4
51	4.000	1.32	10.0	590	590	4	4
52	N/A	N/A	N/A	N/A	590	N/A	4

Table 2.2.10
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 6

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-14.829	0.00	10.0	600	600	1	1
1	-13.317	0.00	10.0	600	600	1	1
2	-11.805	0.00	10.0	600	600	1	1
3	-10.293	0.00	10.0	600	600	1	1
4	-8.781	0.00	10.0	600	600	1	1
5	-7.269	0.01	10.0	600	600	1	1
6	-5.757	0.02	10.0	600	600	1	1
7	-4.244	0.12	10.0	600	600	1	1
8	-2.841	0.72	10.0	616	614	1	1
9	-2.232	1.65	10.0	624	624	1	1
10	-1.850	2.61	8.4	629	630	1	1
11	-1.565	3.51	7.3	633	634	1	1
12	-1.333	4.37	6.5	636	637	1	1
13	-1.135	5.22	5.9	639	640	1	1
14	-0.962	6.10	5.5	641	643	1	1
15	-0.807	6.98	5.1	643	645	1	1
16	-0.666	7.86	4.8	645	648	1	2
17	-0.536	8.69	4.6	647	650	2	2
18	-0.416	9.46	4.4	649	652	2	2
19	-0.302	10.15	4.3	650	654	2	2
20	-0.193	10.77	4.1	652	656	2	2
21	-0.089	11.32	4.0	653	658	2	2
22	0.011	11.81	4.0	654	659	2	2
23	0.108	12.26	3.9	656	661	2	3
24	0.203	12.67	3.8	657	663	2	3
25	0.296	13.05	3.8	658	664	2	3
26	0.387	13.41	3.7	659	666	2	3
27	0.477	13.73	3.7	661	667	3	3
28	0.566	14.02	3.6	662	669	3	3
29	0.655	14.27	3.6	663	670	3	3
30	0.743	14.47	3.6	664	672	3	4
31	0.831	14.64	3.6	666	673	3	4
32	0.919	14.77	3.5	667	675	3	4
33	1.007	14.86	3.5	668	676	3	4
34	1.096	14.91	3.5	669	677	3	4
35	1.186	14.91	3.5	670	679	3	4
36	1.278	14.87	3.5	672	680	4	4
37	1.371	14.77	3.5	673	682	4	4
38	1.466	14.60	3.6	674	683	4	4

Table 2.2.10 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 6

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	1.564	14.37	3.6	676	685	4	4
40	1.665	14.05	3.6	677	686	4	4
41	1.770	13.66	3.7	678	688	4	4
42	1.879	13.17	3.7	680	689	4	4
43	1.995	12.58	3.8	681	690	4	4
44	2.118	11.85	3.9	683	690	4	4
45	2.251	10.96	4.1	685	690	4	4
46	2.398	9.85	4.3	687	690	4	4
47	2.564	8.53	4.7	689	690	4	4
48	2.759	7.03	5.1	690	690	4	4
49	2.998	5.44	5.8	690	690	4	4
50	3.305	3.91	6.9	690	690	4	4
51	3.729	2.54	8.5	690	690	4	4
52	4.000	1.93	9.8	690	690	4	4
53	4.000	1.93	9.8	690	690	4	4
54	4.000	1.93	9.8	690	690	4	4

Table 2.2.11
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 7

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-21.715	0.00	10.0	700	700	1	1
1	-19.418	0.00	10.0	700	700	1	1
2	-17.121	0.00	10.0	700	700	1	1
3	-14.823	0.00	10.0	700	700	1	1
4	-12.526	0.00	10.0	700	700	1	1
5	-10.229	0.00	10.0	700	700	1	1
6	-7.932	0.00	10.0	700	700	1	1
7	-5.635	0.01	10.0	700	715	1	1
8	-3.231	0.27	10.0	711	731	1	1
9	-2.241	1.22	10.0	724	738	1	1
10	-1.771	2.29	9.2	731	743	1	1
11	-1.453	3.35	7.6	735	746	1	1
12	-1.208	4.36	6.6	739	749	1	2
13	-1.007	5.30	6.0	741	752	1	2
14	-0.835	6.20	5.6	744	754	1	2
15	-0.682	7.06	5.2	746	756	1	2
16	-0.545	7.91	4.9	748	758	2	2
17	-0.420	8.76	4.7	750	760	2	3
18	-0.304	9.62	4.5	751	762	2	3
19	-0.195	10.48	4.3	753	763	2	3
20	-0.094	11.36	4.1	754	765	2	3
21	0.003	12.25	4.0	755	766	2	3
22	0.095	13.13	3.8	757	768	2	3
23	0.184	14.02	3.7	758	769	2	3
24	0.269	14.88	3.6	759	771	2	3
25	0.351	15.72	3.5	760	772	3	3
26	0.431	16.51	3.4	761	773	3	3
27	0.510	17.25	3.3	762	775	3	4
28	0.587	17.92	3.3	764	776	3	4
29	0.662	18.50	3.2	765	777	3	4
30	0.738	18.98	3.2	766	779	3	4
31	0.812	19.36	3.1	767	780	3	4
32	0.887	19.62	3.1	768	782	3	4
33	0.962	19.79	3.1	769	783	3	4
34	1.037	19.85	3.1	770	785	3	4
35	1.114	19.81	3.1	771	786	3	4
36	1.191	19.69	3.1	772	788	3	4
37	1.270	19.49	3.1	773	790	3	4
38	1.351	19.21	3.2	773	790	3	4

Table 2.2.11 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 7

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	1.434	18.84	3.2	775	790	4	4
40	1.520	18.36	3.2	776	790	4	4
41	1.610	17.75	3.3	778	790	4	4
42	1.704	16.99	3.4	779	790	4	4
43	1.803	16.08	3.5	780	790	4	4
44	1.908	15.02	3.6	782	790	4	4
45	2.022	13.82	3.7	783	790	4	4
46	2.146	12.53	3.9	785	790	4	4
47	2.282	11.19	4.1	787	790	4	4
48	2.435	9.83	4.4	789	790	4	4
49	2.609	8.48	4.8	790	N/A	4	N/A
50	2.812	7.11	5.2	790	N/A	4	N/A
51	3.058	5.65	5.8	790	N/A	4	N/A
52	3.383	4.01	6.9	790	N/A	4	N/A
53	3.898	2.12	9.5	790	N/A	4	N/A
54	4.000	1.84	10.0	790	N/A	4	N/A

Table 2.2.12
Raw Score to Scale Score Lookup Table
Mathematics Grade 8

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
0	-14.578	0.00	10.0	800	800	1	1
1	-12.996	0.00	10.0	800	800	1	1
2	-11.414	0.00	10.0	800	800	1	1
3	-9.833	0.00	10.0	800	800	1	1
4	-8.251	0.01	10.0	800	800	1	1
5	-6.669	0.02	10.0	800	800	1	1
6	-5.087	0.07	10.0	800	800	1	1
7	-3.391	0.40	10.0	808	800	1	1
8	-2.472	1.27	10.0	821	812	1	1
9	-1.992	2.28	9.0	827	827	1	1
10	-1.658	3.31	7.5	832	834	1	1
11	-1.396	4.29	6.6	835	838	1	1
12	-1.177	5.19	6.0	838	841	1	1
13	-0.985	6.04	5.5	841	844	1	1
14	-0.813	6.84	5.2	843	846	1	1
15	-0.656	7.62	4.9	846	848	1	1
16	-0.510	8.38	4.7	848	850	1	2
17	-0.374	9.12	4.5	849	852	2	2
18	-0.245	9.84	4.3	851	854	2	2
19	-0.124	10.53	4.2	853	855	2	2
20	-0.008	11.17	4.1	854	857	2	2
21	0.103	11.75	4.0	856	858	2	2
22	0.209	12.28	3.9	857	859	2	2
23	0.311	12.75	3.8	859	861	2	3
24	0.410	13.16	3.8	860	862	3	3
25	0.506	13.53	3.7	861	864	3	3
26	0.599	13.87	3.7	863	865	3	3
27	0.690	14.19	3.6	864	867	3	3
28	0.778	14.49	3.6	865	868	3	3
29	0.865	14.79	3.5	866	869	3	3
30	0.950	15.09	3.5	867	870	3	3
31	1.034	15.38	3.5	869	872	3	4
32	1.116	15.66	3.4	870	874	3	4
33	1.198	15.94	3.4	870	875	3	4
34	1.280	16.20	3.4	872	877	4	4
35	1.361	16.43	3.4	873	878	4	4
36	1.442	16.63	3.3	874	880	4	4
37	1.524	16.78	3.3	875	881	4	4
38	1.606	16.86	3.3	876	883	4	4

Table 2.2.12 (continued)
 Raw Score to Scale Score Lookup Table
 Mathematics Grade 8

Raw Score	Theta	Information	SE (Scale Score)	Scale Score		Achievement Level	
				2017	2016	2017	2016
39	1.690	16.87	3.3	877	884	4	4
40	1.774	16.77	3.3	879	886	4	4
41	1.861	16.57	3.3	880	887	4	4
42	1.951	16.23	3.4	881	889	4	4
43	2.044	15.74	3.4	882	890	4	4
44	2.142	15.10	3.5	884	890	4	4
45	2.246	14.29	3.6	885	890	4	4
46	2.357	13.31	3.7	887	890	4	4
47	2.478	12.17	3.9	888	890	4	4
48	2.612	10.88	4.1	890	890	4	4
49	2.765	9.42	4.4	890	890	4	4
50	2.944	7.81	4.9	890	890	4	4
51	3.164	6.03	5.5	890	890	4	4
52	3.459	4.12	6.7	890	890	4	4
53	3.915	2.17	9.2	890	890	4	4
54	4.000	1.93	9.8	890	890	4	4
55	4.000	1.93	9.8	890	N/A	4	N/A

Section 2.3

Cumulative Scale Score Distribution Tables

Table 2.3.1
 Cumulative Scale Score Distribution
 English Language Arts Grade 3

Scale Score	N	Proportion	Cumulative Proportion
300	89	0.00690	0.00690
315	100	0.00775	0.01465
323	118	0.00915	0.02380
328	170	0.01318	0.03699
331	197	0.01527	0.05226
334	238	0.01845	0.07071
337	293	0.02272	0.09343
339	296	0.02295	0.11638
340	283	0.02194	0.13833
342	296	0.02295	0.16128
344	312	0.02419	0.18547
345	294	0.02280	0.20827
346	278	0.02156	0.22982
348	317	0.02458	0.25440
349	292	0.02264	0.27704
350	273	0.02117	0.29821
351	324	0.02512	0.32333
353	322	0.02497	0.34830
354	330	0.02559	0.37389
355	342	0.02652	0.40040
356	398	0.03086	0.43126
357	372	0.02884	0.46011
358	366	0.02838	0.48849
359	332	0.02574	0.51423
360	391	0.03032	0.54455
361	370	0.02869	0.57323
362	368	0.02853	0.60177
364	334	0.02590	0.62767
365	373	0.02892	0.65659
366	349	0.02706	0.68365
367	347	0.02691	0.71055
368	344	0.02667	0.73723
369	326	0.02528	0.76250
370	322	0.02497	0.78747
372	309	0.02396	0.81143
373	305	0.02365	0.83508
374	297	0.02303	0.85811
376	289	0.02241	0.88051
377	279	0.02163	0.90215
379	236	0.01830	0.92045

Table 2.3.1 (continued)
 Cumulative Scale Score Distribution
 English Language Arts Grade 3

Scale Score	N	Proportion	Cumulative Proportion
380	237	0.01838	0.93882
382	196	0.01520	0.95402
384	173	0.01341	0.96743
386	133	0.01031	0.97775
389	119	0.00923	0.98697
390	168	0.01303	1.00000

Table 2.3.2
 Cumulative Scale Score Distribution
 English Language Arts Grade 4

Scale Score	N	Proportion	Cumulative Proportion
400	74	0.00560	0.00560
410	35	0.00265	0.00824
418	97	0.00734	0.01558
424	108	0.00817	0.02375
429	159	0.01203	0.03578
432	203	0.01535	0.05113
435	239	0.01808	0.06921
438	246	0.01861	0.08781
440	271	0.02050	0.10831
442	272	0.02057	0.12889
444	310	0.02345	0.15233
445	346	0.02617	0.17850
447	349	0.02640	0.20490
448	359	0.02715	0.23206
450	354	0.02678	0.25883
451	319	0.02413	0.28296
453	380	0.02874	0.31170
454	373	0.02821	0.33991
455	377	0.02852	0.36843
456	399	0.03018	0.39861
458	357	0.02700	0.42561
459	803	0.06074	0.48635
461	402	0.03041	0.51675
462	392	0.02965	0.54640
463	348	0.02632	0.57273
465	401	0.03033	0.60306
466	393	0.02973	0.63278
467	418	0.03162	0.66440
468	352	0.02662	0.69102
469	356	0.02693	0.71795
471	347	0.02625	0.74419
472	373	0.02821	0.77241
473	361	0.02731	0.79971
475	340	0.02572	0.82543
476	318	0.02405	0.84948
478	325	0.02458	0.87406
479	273	0.02065	0.89471
481	261	0.01974	0.91445
482	223	0.01687	0.93132
484	185	0.01399	0.94531

Table 2.3.2 (continued)
Cumulative Scale Score Distribution
English Language Arts Grade 4

Scale Score	N	Proportion	Cumulative Proportion
486	173	0.01309	0.95840
488	132	0.00998	0.96838
490	418	0.03162	1.00000

Table 2.3.3
 Cumulative Scale Score Distribution
 English Language Arts Grade 5

Scale Score	N	Proportion	Cumulative Proportion
500	70	0.00538	0.00538
509	42	0.00323	0.00861
516	82	0.00631	0.01492
522	101	0.00777	0.02269
526	137	0.01054	0.03322
529	177	0.01361	0.04683
532	174	0.01338	0.06021
535	208	0.01600	0.07621
537	221	0.01699	0.09320
539	250	0.01922	0.11243
541	249	0.01915	0.13157
543	269	0.02069	0.15226
545	298	0.02292	0.17518
547	316	0.02430	0.19948
548	294	0.02261	0.22209
550	307	0.02361	0.24569
551	308	0.02369	0.26938
552	281	0.02161	0.29099
554	322	0.02476	0.31575
555	325	0.02499	0.34074
556	333	0.02561	0.36635
557	324	0.02492	0.39126
559	738	0.05675	0.44802
561	324	0.02492	0.47293
562	401	0.03084	0.50377
563	364	0.02799	0.53176
564	357	0.02745	0.55921
566	404	0.03107	0.59028
567	368	0.02830	0.61858
568	357	0.02745	0.64603
569	363	0.02791	0.67395
570	365	0.02807	0.70201
572	405	0.03114	0.73316
573	363	0.02791	0.76107
574	343	0.02638	0.78745
575	338	0.02599	0.81344
577	344	0.02645	0.83990
579	311	0.02392	0.86381
580	306	0.02353	0.88734
582	308	0.02369	0.91103

Table 2.3.3 (continued)
Cumulative Scale Score Distribution
English Language Arts Grade 5

Scale Score	N	Proportion	Cumulative Proportion
583	227	0.01746	0.92848
585	223	0.01715	0.94563
587	185	0.01423	0.95986
589	159	0.01223	0.97209
590	363	0.02791	1.00000

Table 2.3.4
 Cumulative Scale Score Distribution
 English Language Arts Grade 6

Scale Score	N	Proportion	Cumulative Proportion
600	30	0.00228	0.00228
607	33	0.00251	0.00478
614	50	0.00380	0.00858
619	69	0.00524	0.01382
623	106	0.00805	0.02187
626	102	0.00774	0.02961
629	129	0.00979	0.03940
631	161	0.01222	0.05163
633	145	0.01101	0.06264
635	173	0.01313	0.07577
636	170	0.01291	0.08868
638	201	0.01526	0.10394
639	196	0.01488	0.11882
641	208	0.01579	0.13461
642	220	0.01670	0.15132
643	246	0.01868	0.16999
645	241	0.01830	0.18829
646	264	0.02004	0.20834
647	253	0.01921	0.22755
649	284	0.02156	0.24911
650	302	0.02293	0.27204
651	339	0.02574	0.29778
652	362	0.02748	0.32526
653	338	0.02566	0.35092
655	374	0.02840	0.37932
656	382	0.02900	0.40832
657	396	0.03007	0.43839
658	430	0.03265	0.47103
659	429	0.03257	0.50361
661	412	0.03128	0.53489
662	438	0.03325	0.56814
663	418	0.03174	0.59988
664	396	0.03007	0.62994
665	430	0.03265	0.66259
667	417	0.03166	0.69425
668	405	0.03075	0.72500
669	383	0.02908	0.75408
671	385	0.02923	0.78331
672	431	0.03272	0.81604
674	360	0.02733	0.84337

Table 2.3.4 (continued)
 Cumulative Scale Score Distribution
 English Language Arts Grade 6

Scale Score	N	Proportion	Cumulative Proportion
675	328	0.02490	0.86827
677	329	0.02498	0.89325
679	302	0.02293	0.91618
680	240	0.01822	0.93440
682	255	0.01936	0.95376
685	166	0.01260	0.96637
687	145	0.01101	0.97737
690	298	0.02263	1.00000

Table 2.3.5
 Cumulative Scale Score Distribution
 English Language Arts Grade 7

Scale Score	N	Proportion	Cumulative Proportion
700	33	0.00250	0.00250
704	32	0.00242	0.00492
714	40	0.00303	0.00795
720	53	0.00401	0.01196
725	77	0.00583	0.01779
728	106	0.00803	0.02582
731	129	0.00977	0.03558
733	156	0.01181	0.04740
736	196	0.01484	0.06224
738	213	0.01613	0.07836
739	216	0.01635	0.09472
741	239	0.01810	0.11281
743	256	0.01938	0.13219
744	247	0.01870	0.15089
745	239	0.01810	0.16899
747	285	0.02158	0.19057
748	291	0.02203	0.21260
749	272	0.02059	0.23319
751	311	0.02355	0.25674
752	333	0.02521	0.28195
753	360	0.02726	0.30921
754	348	0.02635	0.33555
755	340	0.02574	0.36130
756	388	0.02938	0.39067
757	397	0.03006	0.42073
759	753	0.05701	0.47774
761	407	0.03081	0.50856
762	404	0.03059	0.53914
763	385	0.02915	0.56829
764	381	0.02885	0.59714
765	427	0.03233	0.62947
766	380	0.02877	0.65824
768	364	0.02756	0.68580
769	361	0.02733	0.71313
770	345	0.02612	0.73925
771	324	0.02453	0.76378
772	360	0.02726	0.79104
774	327	0.02476	0.81579
775	291	0.02203	0.83783
776	297	0.02249	0.86031

Table 2.3.5 (continued)
 Cumulative Scale Score Distribution
 English Language Arts Grade 7

Scale Score	N	Proportion	Cumulative Proportion
778	250	0.01893	0.87924
779	242	0.01832	0.89756
781	215	0.01628	0.91384
782	227	0.01719	0.93103
784	195	0.01476	0.94579
786	152	0.01151	0.95730
788	154	0.01166	0.96896
790	410	0.03104	1.00000

Table 2.3.6
 Cumulative Scale Score Distribution
 English Language Arts Grade 8

Scale Score	N	Proportion	Cumulative Proportion
800	48	0.00373	0.00373
802	25	0.00194	0.00567
812	67	0.00520	0.01087
818	75	0.00582	0.01670
823	90	0.00699	0.02369
827	115	0.00893	0.03262
830	137	0.01064	0.04326
832	181	0.01406	0.05731
835	196	0.01522	0.07253
837	200	0.01553	0.08806
838	208	0.01615	0.10422
840	215	0.01670	0.12091
842	208	0.01615	0.13707
843	232	0.01802	0.15508
845	234	0.01817	0.17325
846	273	0.02120	0.19446
847	290	0.02252	0.21698
849	281	0.02182	0.23880
850	285	0.02213	0.26093
851	298	0.02314	0.28407
852	295	0.02291	0.30698
853	296	0.02299	0.32997
854	320	0.02485	0.35482
855	325	0.02524	0.38006
857	318	0.02470	0.40475
858	329	0.02555	0.43030
859	702	0.05452	0.48482
861	397	0.03083	0.51565
862	355	0.02757	0.54322
863	373	0.02897	0.57218
864	350	0.02718	0.59936
865	388	0.03013	0.62949
867	411	0.03192	0.66141
868	351	0.02726	0.68867
869	370	0.02873	0.71740
870	369	0.02866	0.74606
871	360	0.02796	0.77402
873	329	0.02555	0.79957
874	322	0.02501	0.82457
875	294	0.02283	0.84740

Table 2.3.6 (continued)
 Cumulative Scale Score Distribution
 English Language Arts Grade 8

Scale Score	N	Proportion	Cumulative Proportion
877	281	0.02182	0.86922
878	250	0.01941	0.88864
880	261	0.02027	0.90891
882	233	0.01809	0.92700
883	188	0.01460	0.94160
885	159	0.01235	0.95395
887	157	0.01219	0.96614
889	115	0.00893	0.97507
890	321	0.02493	1.00000

Table 2.3.7
 Cumulative Scale Score Distribution
 Mathematics Grade 3

Scale Score	N	Proportion	Cumulative Proportion
300	230	0.01776	0.01776
311	169	0.01305	0.03080
323	205	0.01583	0.04663
329	268	0.02069	0.06732
333	284	0.02193	0.08925
337	309	0.02386	0.11310
339	339	0.02617	0.13927
342	368	0.02841	0.16768
344	379	0.02926	0.19694
346	432	0.03335	0.23029
347	429	0.03312	0.26341
349	404	0.03119	0.29460
351	443	0.03420	0.32880
352	459	0.03544	0.36424
354	456	0.03520	0.39944
355	450	0.03474	0.43419
357	482	0.03721	0.47140
358	429	0.03312	0.50452
359	489	0.03775	0.54227
361	430	0.03320	0.57547
362	429	0.03312	0.60858
363	422	0.03258	0.64116
365	393	0.03034	0.67150
366	376	0.02903	0.70053
367	366	0.02826	0.72879
369	348	0.02687	0.75566
370	392	0.03026	0.78592
371	342	0.02640	0.81232
373	324	0.02501	0.83733
374	292	0.02254	0.85988
375	268	0.02069	0.88057
377	273	0.02108	0.90164
378	209	0.01614	0.91778
380	198	0.01529	0.93307
382	194	0.01498	0.94804
383	157	0.01212	0.96016
385	117	0.00903	0.96920
387	116	0.00896	0.97815
389	95	0.00733	0.98549
390	188	0.01451	1.00000

Table 2.3.8
 Cumulative Scale Score Distribution
 Mathematics Grade 4

Scale Score	N	Proportion	Cumulative Proportion
400	261	0.01969	0.01969
415	224	0.01690	0.03659
427	238	0.01796	0.05455
434	352	0.02656	0.08111
438	387	0.02920	0.11031
441	418	0.03154	0.14184
444	469	0.03539	0.17723
446	517	0.03901	0.21624
448	533	0.04021	0.25645
450	584	0.04406	0.30051
452	599	0.04519	0.34571
453	645	0.04866	0.39437
455	601	0.04534	0.43972
456	571	0.04308	0.48280
458	540	0.04074	0.52354
459	554	0.04180	0.56534
461	537	0.04052	0.60585
462	519	0.03916	0.64501
463	488	0.03682	0.68183
465	492	0.03712	0.71895
466	443	0.03342	0.75238
467	396	0.02988	0.78225
468	342	0.02580	0.80806
470	340	0.02565	0.83371
471	292	0.02203	0.85574
472	254	0.01916	0.87491
474	248	0.01871	0.89362
475	213	0.01607	0.90969
476	193	0.01456	0.92425
478	177	0.01335	0.93760
479	163	0.01230	0.94990
481	123	0.00928	0.95918
482	93	0.00702	0.96620
484	92	0.00694	0.97314
486	67	0.00506	0.97820
488	81	0.00611	0.98431
490	208	0.01569	1.00000

Table 2.3.9
 Cumulative Scale Score Distribution
 Mathematics Grade 5

Scale Score	N	Proportion	Cumulative Proportion
500	482	0.03689	0.03689
522	326	0.02495	0.06184
531	425	0.03253	0.09437
536	465	0.03559	0.12997
539	486	0.03720	0.16716
542	548	0.04194	0.20911
544	571	0.04370	0.25281
546	550	0.04210	0.29491
548	547	0.04187	0.33678
550	543	0.04156	0.37834
551	548	0.04194	0.42028
553	526	0.04026	0.46054
554	545	0.04171	0.50226
556	488	0.03735	0.53961
557	498	0.03812	0.57773
558	436	0.03337	0.61110
559	433	0.03314	0.64424
561	412	0.03153	0.67577
562	382	0.02924	0.70501
563	368	0.02817	0.73318
564	330	0.02526	0.75844
565	335	0.02564	0.78408
566	268	0.02051	0.80459
567	301	0.02304	0.82763
569	280	0.02143	0.84906
570	240	0.01837	0.86743
571	206	0.01577	0.88320
572	198	0.01515	0.89835
573	198	0.01515	0.91351
574	146	0.01117	0.92468
575	142	0.01087	0.93555
576	117	0.00896	0.94451
577	118	0.00903	0.95354
579	121	0.00926	0.96280
580	76	0.00582	0.96862
581	76	0.00582	0.97444
583	70	0.00536	0.97979
584	68	0.00520	0.98500
586	54	0.00413	0.98913
588	46	0.00352	0.99265

Table 2.3.9 (continued)
Cumulative Scale Score Distribution
Mathematics Grade 5

Scale Score	N	Proportion	Cumulative Proportion
590	96	0.00735	1.00000

Table 2.3.10
 Cumulative Scale Score Distribution
 Mathematics Grade 6

Scale Score	N	Proportion	Cumulative Proportion
600	337	0.02546	0.02546
616	190	0.01435	0.03982
624	313	0.02365	0.06346
629	304	0.02297	0.08643
633	392	0.02962	0.11605
636	425	0.03211	0.14816
639	472	0.03566	0.18382
641	456	0.03445	0.21827
643	503	0.03800	0.25627
645	506	0.03823	0.29450
647	516	0.03898	0.33348
649	538	0.04065	0.37413
650	565	0.04269	0.41682
652	511	0.03861	0.45542
653	513	0.03876	0.49418
654	523	0.03951	0.53370
656	462	0.03490	0.56860
657	483	0.03649	0.60509
658	440	0.03324	0.63833
659	469	0.03543	0.67377
661	435	0.03286	0.70663
662	372	0.02811	0.73474
663	359	0.02712	0.76186
664	361	0.02727	0.78914
666	349	0.02637	0.81550
667	322	0.02433	0.83983
668	300	0.02267	0.86250
669	268	0.02025	0.88274
670	220	0.01662	0.89937
672	192	0.01451	0.91387
673	213	0.01609	0.92996
674	179	0.01352	0.94349
676	137	0.01035	0.95384
677	116	0.00876	0.96260
678	126	0.00952	0.97212
680	85	0.00642	0.97854
681	90	0.00680	0.98534
683	57	0.00431	0.98965
685	51	0.00385	0.99350
687	29	0.00219	0.99569

Table 2.3.10 (continued)
Cumulative Scale Score Distribution
Mathematics Grade 6

Scale Score	N	Proportion	Cumulative Proportion
689	22	0.00166	0.99736
690	35	0.00264	1.00000

Table 2.3.11
 Cumulative Scale Score Distribution
 Mathematics Grade 7

Scale Score	N	Proportion	Cumulative Proportion
700	302	0.02276	0.02276
711	248	0.01869	0.04146
724	296	0.02231	0.06377
731	370	0.02789	0.09166
735	408	0.03076	0.12242
739	432	0.03256	0.15498
741	474	0.03573	0.19071
744	474	0.03573	0.22644
746	533	0.04018	0.26662
748	501	0.03777	0.30439
750	445	0.03354	0.33793
751	502	0.03784	0.37577
753	490	0.03694	0.41271
754	457	0.03445	0.44716
755	481	0.03626	0.48342
757	486	0.03664	0.52005
758	452	0.03407	0.55412
759	462	0.03483	0.58895
760	462	0.03483	0.62378
761	444	0.03347	0.65724
762	381	0.02872	0.68596
764	408	0.03076	0.71672
765	387	0.02917	0.74589
766	357	0.02691	0.77280
767	347	0.02616	0.79896
768	296	0.02231	0.82127
769	290	0.02186	0.84313
770	245	0.01847	0.86160
771	252	0.01900	0.88060
772	215	0.01621	0.89680
773	391	0.02947	0.92628
775	171	0.01289	0.93917
776	149	0.01123	0.95040
778	127	0.00957	0.95997
779	91	0.00686	0.96683
780	85	0.00641	0.97324
782	77	0.00580	0.97904
783	56	0.00422	0.98327
785	45	0.00339	0.98666
787	54	0.00407	0.99073

Table 2.3.11 (continued)
Cumulative Scale Score Distribution
Mathematics Grade 7

Scale Score	N	Proportion	Cumulative Proportion
789	40	0.00302	0.99374
790	83	0.00626	1.00000

Table 2.3.12
 Cumulative Scale Score Distribution
 Mathematics Grade 8

Scale Score	N	Proportion	Cumulative Proportion
800	151	0.01168	0.01168
808	118	0.00913	0.02081
821	190	0.01470	0.03550
827	270	0.02088	0.05638
832	315	0.02436	0.08075
835	368	0.02846	0.10921
838	411	0.03179	0.14100
841	510	0.03945	0.18045
843	537	0.04153	0.22198
846	543	0.04200	0.26398
848	587	0.04540	0.30938
849	634	0.04904	0.35842
851	620	0.04795	0.40637
853	620	0.04795	0.45433
854	655	0.05066	0.50499
856	603	0.04664	0.55163
857	641	0.04958	0.60121
859	636	0.04919	0.65040
860	478	0.03697	0.68737
861	487	0.03767	0.72504
863	460	0.03558	0.76062
864	376	0.02908	0.78970
865	391	0.03024	0.81994
866	339	0.02622	0.84616
867	208	0.01609	0.86225
869	218	0.01686	0.87911
870	397	0.03071	0.90982
872	148	0.01145	0.92126
873	149	0.01152	0.93279
874	133	0.01029	0.94307
875	113	0.00874	0.95181
876	109	0.00843	0.96024
877	108	0.00835	0.96860
879	64	0.00495	0.97355
880	65	0.00503	0.97858
881	52	0.00402	0.98260
882	50	0.00387	0.98646
884	51	0.00394	0.99041
885	33	0.00255	0.99296
887	25	0.00193	0.99490

Table 2.3.12 (continued)
Cumulative Scale Score Distribution
Mathematics Grade 8

Scale Score	N	Proportion	Cumulative Proportion
888	17	0.00131	0.99621
890	49	0.00379	1.00000

Section 2.4

Rescore Analysis Results

Table 2.4.1
Rescore Analysis
English Language Arts Grade 3

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
129871A	2	0.55941	0.56436	0.52683	0.54482	0.00940	False
406766	2	0.50495	0.37624	0.57517	0.53442	-0.22378	False
410735	3	0.81951	0.79512	0.58712	0.53042	-0.04154	False
418699	3	0.64356	0.57426	0.61627	0.62846	-0.11246	False

Table 2.4.2
Rescore Analysis
English Language Arts Grade 4

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
128768A	3	0.76355	0.78818	0.86359	0.75088	0.02852	False
129528A	2	0.52195	0.56098	0.71109	0.66601	0.05488	False
130728A	2	0.46907	0.57216	0.70643	0.70340	0.14594	False
410868	3	0.94581	1.02956	0.48951	0.59629	0.17108	False

Table 2.4.3
Rescore Analysis
English Language Arts Grade 5

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
129019A	2	0.70244	0.78049	0.56381	0.59045	0.13843	False
129196A	3	0.52683	0.68293	0.65343	0.81767	0.23889	False
416527	3	0.95122	0.94146	0.90617	0.90559	-0.01077	False
422629	2	0.52970	0.55446	0.70648	0.72586	0.03504	False

Table 2.4.4
Rescore Analysis
English Language Arts Grade 6

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
131520A	2	0.78537	0.91707	0.70208	0.69870	0.18759	False
132122A	4	1.07960	0.98010	0.81464	0.98975	-0.12214	False
401568	4	1.24390	1.27805	0.80988	0.72474	0.04216	False
420298	2	0.76961	0.79902	0.74335	0.63850	0.03957	False

Table 2.4.5
Rescore Analysis
English Language Arts Grade 7

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
129214A	2	0.56585	0.66341	0.65064	0.67073	0.14995	False
407845	4	0.67317	0.87317	0.88313	0.98693	0.22647	False
416793	4	1.03415	1.48293	0.81878	0.94762	0.54811	True
407798	2	0.55610	0.36098	0.62074	0.53910	-0.31434	False

Table 2.4.6
Rescore Analysis
English Language Arts Grade 8

Item Id	Max	Old Mean	New Mean	Old StDev	New StDev	Effect Size	Discard
130644A	2	1.02439	0.97561	0.64503	0.68912	-0.07562	False
131197A	4	0.90686	0.95588	0.82220	0.87269	0.05962	False
131198A	2	0.84236	0.77833	0.51201	0.61750	-0.12507	False
420990	4	1.05366	0.95122	0.81171	0.83288	-0.12620	False

Section 2.5

Tabled Delta Analysis Results

Table 2.5.1
Delta Analysis
English Language Arts Grade 3

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
129871A	0.23500	0.22000	15.88992	16.08877	2	False	-0.62522
401182	0.71000	0.73000	10.78646	10.54875	1	False	-0.34011
401685	0.49000	0.47000	13.10028	13.30108	1	False	-0.71936
406766	0.25000	0.20000	15.69796	16.36648	2	False	0.40326
406771	0.57000	0.60000	12.29450	11.98661	1	False	0.36870
406787	0.63000	0.59000	11.67259	12.08982	1	False	0.54888
406898	0.73000	0.78000	10.54875	9.91123	1	False	1.18407
410374	0.53000	0.48000	12.69892	13.20061	1	False	0.59294
410387	0.71000	0.70000	10.78646	10.90240	1	False	-0.39844
410396	0.28500	0.29500	15.27221	15.15534	2	False	0.45595
410415	0.71000	0.69000	10.78646	11.01660	1	False	0.05626
410420	0.64000	0.62000	11.56616	11.77808	1	False	-0.23832
410432	0.73000	0.72000	10.54875	10.66863	1	False	-0.31503
410639	0.50000	0.64000	13.00000	11.56616	1	True	5.05261
410703	0.89000	0.88000	8.09389	8.30005	1	False	0.72748
410708	0.60000	0.54000	11.98661	12.59827	1	False	1.23357
410723	0.47500	0.51500	13.25083	12.84957	2	False	1.01275
410735	0.24667	0.21333	15.74007	16.17963	3	False	-0.52034
418618	0.78000	0.80000	9.91123	9.63352	1	False	-0.43006
418622	0.48000	0.48000	13.20061	13.20061	1	False	-0.59919
418629	0.54000	0.52000	12.59827	12.79939	1	False	-0.57516
418639	0.48000	0.47000	13.20061	13.30108	1	False	-0.99920
418643	0.68000	0.71000	11.12920	10.78646	1	False	0.17567
418646	0.70000	0.71000	10.90240	10.78646	1	False	-0.79196
418652	0.57000	0.58000	12.29450	12.19243	1	False	-0.45077
418659	0.45000	0.43000	13.50265	13.70550	1	False	-0.82578
418677	0.39500	0.40000	14.06524	14.01339	2	False	-0.14654
418699	0.19000	0.16000	16.51159	16.97783	3	False	-0.63380
421611	0.52000	0.49000	12.79939	13.10028	1	False	-0.23518
421614	0.54000	0.50000	12.59827	13.00000	1	False	0.22360
421623	0.60000	0.58000	11.98661	12.19243	1	False	-0.38231
421651	0.62000	0.59000	11.77808	12.08982	1	False	0.09883
421656	0.48000	0.47000	13.20061	13.30108	1	False	-0.99920
421661	0.54000	0.51000	12.59827	12.89972	2	False	-0.17565
421672	0.60000	0.63000	11.98661	11.67259	1	False	0.30545
421674	0.44000	0.44000	13.60388	13.60388	1	False	-0.48437
421676	0.61000	0.59000	11.88272	12.08982	1	False	-0.34763
421681	0.46000	0.46000	13.40173	13.40173	1	False	-0.54193
421683	0.57000	0.54000	12.29450	12.59827	1	False	-0.07999
421895	0.37000	0.34000	14.32741	14.64985	2	False	-0.58447

Table 2.5.2
Delta Analysis
English Language Arts Grade 4

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
128683A	0.46000	0.48000	13.40173	13.20061	1	False	-1.05854
128686A	0.42000	0.41000	13.80757	13.91018	1	False	-0.59902
128687A	0.66000	0.62000	11.35015	11.77808	1	False	0.52919
128689A	0.45000	0.44000	13.50265	13.60388	1	False	-0.57339
128690A	0.42000	0.36000	13.80757	14.43384	1	False	0.83573
128692A	0.34000	0.29500	14.64985	15.15534	2	False	0.42365
128768A	0.23333	0.23333	15.91165	15.91165	3	False	-1.08294
129528A	0.25500	0.22500	15.63535	16.02166	2	False	0.00212
130668A	0.61500	0.54000	11.83050	12.59827	2	False	1.41399
130675A	0.51000	0.55000	12.89972	12.49735	1	False	-0.55553
130704A	0.61000	0.60000	11.88272	11.98661	1	False	-0.40998
130706A	0.62000	0.60000	11.77808	11.98661	1	False	-0.11317
130709A	0.69000	0.71000	11.01660	10.78646	1	False	-1.20892
130710A	0.70000	0.81000	10.90240	9.48841	1	False	2.02365
130712A	0.70000	0.68000	10.90240	11.12920	1	False	0.02129
130728A	0.18000	0.18000	16.66146	16.66146	2	False	-1.15522
401759	0.59000	0.59000	12.08982	12.08982	1	False	-0.71458
402538	0.69000	0.69000	11.01660	11.01660	1	False	-0.61113
402587	0.68000	0.70000	11.12920	10.90240	1	False	-1.20720
410868	0.26333	0.28667	15.53241	15.25260	3	False	-0.63756
410911	0.45000	0.61000	13.50265	11.88272	1	False	2.83852
411246	0.29500	0.34000	15.15534	14.64985	2	False	-0.05558
411251	0.58000	0.62000	12.19243	11.77808	1	False	-0.59088
411256	0.45000	0.48000	13.50265	13.20061	1	False	-0.77233
411261	0.46000	0.56000	13.40173	12.39612	1	False	1.14566
411268	0.66000	0.63000	11.35015	11.67259	1	False	0.24016
411283	0.48000	0.55000	13.20061	12.49735	1	False	0.29787
412876	0.76000	0.79000	10.17479	9.77432	1	False	-0.82336
412895	0.37000	0.38000	14.32741	14.22192	1	False	-1.21928
420633	0.68000	0.61000	11.12920	11.88272	1	False	1.44256
420639	0.64000	0.64000	11.56616	11.56616	1	False	-0.66410
420642	0.83000	0.80000	9.18334	9.63352	1	False	0.79899
420656	0.49000	0.58000	13.10028	12.19243	1	False	0.84875
420671	0.79000	0.76000	9.77432	10.17479	1	False	0.60585
420675	0.29000	0.25500	15.21354	15.63535	2	False	0.14005
420698	0.43000	0.44000	13.70550	13.60388	1	False	-1.14873
420714	0.54000	0.59000	12.59827	12.08982	1	False	-0.29395
420723	0.46500	0.49500	13.35138	13.05013	2	False	-0.78906
420785	0.78000	0.82000	9.91123	9.33854	1	False	-0.37692
420820	0.41000	0.52000	13.91018	12.79939	1	False	1.48286

Table 2.5.2 (continued)
Delta Analysis
English Language Arts Grade 4

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
422664	0.61000	0.72000	11.88272	10.66863	1	False	1.57046

Table 2.5.3
Delta Analysis
English Language Arts Grade 5

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
129003A	0.57000	0.58000	12.29450	12.19243	1	False	-0.85597
129009A	0.36000	0.38000	14.43384	14.22192	1	False	-0.77657
129011A	0.71000	0.65000	10.78646	11.45872	1	False	0.90486
129012A	0.61000	0.58000	11.88272	12.19243	1	False	0.14712
129015A	0.53000	0.64000	12.69892	11.56616	2	False	1.64152
129019A	0.37500	0.45500	14.27456	13.45215	2	False	0.56307
129174A	0.61000	0.59000	11.88272	12.08982	1	False	-0.12037
129178A	0.50000	0.53000	13.00000	12.69892	1	False	-0.57809
129179A	0.56000	0.58000	12.39612	12.19243	1	False	-0.72873
129193A	0.40000	0.40000	14.01339	14.01339	1	False	-0.29600
129195A	0.36000	0.41500	14.43384	13.85881	2	False	-0.10905
129196A	0.20667	0.18667	16.27217	16.56099	3	False	0.84310
129198A	0.46000	0.51000	13.40173	12.89972	1	False	-0.12296
129201A	0.74000	0.73000	10.42662	10.54875	1	False	-0.59081
129760A	0.50000	0.47000	13.00000	13.30108	1	False	0.31565
401394	0.60000	0.58000	11.98661	12.19243	1	False	-0.10595
401398	0.70000	0.70000	10.90240	10.90240	1	False	-0.82786
402196	0.88000	0.87000	8.30005	8.49444	1	False	-0.76601
402211	0.68000	0.66000	11.12920	11.35015	1	False	-0.21310
402279	0.62000	0.61000	11.77808	11.88272	1	False	-0.40534
402284	0.62000	0.63000	11.77808	11.67259	1	False	-0.87908
402286	0.56000	0.56000	12.39612	12.39612	1	False	-0.57249
402288	0.38500	0.46500	14.16950	13.35138	2	False	0.56987
402908	0.27500	0.29500	15.39104	15.15534	2	False	-0.67493
410413	0.50000	0.49500	13.00000	13.05013	2	False	-0.33855
410428	0.64000	0.64000	11.56616	11.56616	1	False	-0.71438
410440	0.81000	0.80000	9.48841	9.63352	1	False	-0.69132
410563	0.44000	0.45000	13.60388	13.50265	1	False	-0.62992
410584	0.60000	0.55000	11.98661	12.49735	1	False	0.68898
410588	0.50000	0.45000	13.00000	13.50265	1	False	0.84112
416506	0.65000	0.69000	11.45872	11.01660	1	False	0.05309
416518	0.62000	0.59000	11.77808	12.08982	1	False	0.13455
416527	0.30333	0.34000	15.05935	14.64985	3	False	-0.64752
419292	0.56000	0.61500	12.39612	11.83050	2	False	0.21480
419298	0.36000	0.61000	14.43384	11.88272	1	True	5.04251
419302	0.52000	0.53000	12.79939	12.69892	1	False	-0.76546
419309	0.44000	0.46000	13.60388	13.40173	1	False	-0.89299
419311	0.53000	0.59000	12.69892	12.08982	1	False	0.27638
419321	0.72000	0.78000	10.66863	9.91123	1	False	1.01010
419405	0.80000	0.79000	9.63352	9.77432	1	False	-0.67773

Table 2.5.3 (continued)
 Delta Analysis
 English Language Arts Grade 5

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
419416	0.26000	0.26000	15.57338	15.57338	1	False	-0.02930
419419	0.36000	0.34000	14.43384	14.64985	1	False	0.33903
419421	0.83000	0.78000	9.18334	9.91123	1	False	0.77582
419423	0.52000	0.59000	12.79939	12.08982	1	False	0.52111
422629	0.22000	0.25000	16.08877	15.69796	2	False	-0.87222

Table 2.5.4
Delta Analysis
English Language Arts Grade 6

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
129251A	0.43000	0.55000	13.70550	12.49735	1	False	0.93612
129252A	0.56000	0.64000	12.39612	11.56616	1	False	-0.15066
129254A	0.88000	0.88000	8.30005	8.30005	1	False	-0.23834
129255A	0.67000	0.79000	11.24035	9.77432	1	False	1.13737
129257A	0.77000	0.89000	10.04461	8.09389	1	False	2.06821
129258A	0.36000	0.43500	14.43384	13.65463	2	False	0.05932
129259A	0.46000	0.44000	13.40173	13.60388	1	False	-0.59011
129379A	0.36000	0.52000	14.43384	12.79939	1	False	2.04099
131520A	0.34500	0.38500	14.59542	14.16950	2	False	-0.73328
132116A	0.57000	0.63000	12.29450	11.67259	1	False	-0.64904
132117A	0.58000	0.73000	12.19243	10.54875	1	False	1.70204
132118A	0.56000	0.53000	12.39612	12.69892	1	False	-0.19522
132119A	0.48000	0.60000	13.20061	11.98661	1	False	0.86853
132122A	0.20250	0.26000	16.33090	15.57338	4	False	0.31405
401202	0.64000	0.66000	11.56616	11.35015	1	False	-1.26393
401231	0.53000	0.53000	12.69892	12.69892	1	False	-0.94550
401886	0.74000	0.73000	10.42662	10.54875	1	False	-0.29722
401890	0.88000	0.88000	8.30005	8.30005	1	False	-0.23834
402027	0.50000	0.51000	13.00000	12.89972	2	False	-1.22625
409362	0.76000	0.75000	10.17479	10.30204	1	False	-0.24487
409385	0.45000	0.40000	13.50265	14.01339	1	False	0.10872
409396	0.62000	0.58000	11.77808	12.19243	1	False	0.16261
409447	0.41000	0.37000	13.91018	14.32741	1	False	-0.17347
409458	0.47500	0.47500	13.25083	13.25083	2	False	-1.03423
409472	0.67000	0.58000	11.24035	12.19243	1	False	1.49501
409541	0.56000	0.46000	12.39612	13.40173	1	False	1.43325
409546	0.64000	0.63000	11.56616	11.67259	1	False	-0.51681
409551	0.61000	0.58000	11.88272	12.19243	1	False	-0.09669
409556	0.58000	0.65000	12.19243	11.45872	1	False	-0.40642
409568	0.61000	0.62000	11.88272	11.77808	1	False	-1.05677
419741	0.59000	0.52000	12.08982	12.79939	1	False	0.79653
419743	0.52000	0.55000	12.79939	12.49735	1	False	-1.30907
419745	0.92000	0.94000	7.37971	6.78091	1	False	-1.47787
419747	0.60000	0.64000	11.98661	11.56616	1	False	-1.16536
419750	0.31500	0.35000	14.92691	14.54128	2	False	-0.77336
419754	0.58000	0.54000	12.19243	12.59827	1	False	0.07628
420218	0.58500	0.74500	12.14119	10.36465	2	False	2.00167
420235	0.63000	0.63000	11.67259	11.67259	1	False	-0.78051
420260	0.36000	0.33000	14.43384	14.75965	1	False	-0.46947
420298	0.44000	0.36000	13.60388	14.43384	2	False	0.83209

Table 2.5.5
Delta Analysis
English Language Arts Grade 7

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
128730A	0.75000	0.79000	10.30204	9.77432	1	False	0.00544
128731A	0.58000	0.59000	12.19243	12.08982	1	False	-0.64314
128753A	0.79000	0.76000	9.77432	10.17479	1	False	0.86543
128756A	0.73000	0.74000	10.54875	10.42662	1	False	-0.77902
128757A	0.55000	0.63000	12.49735	11.67259	1	False	0.86201
129214A	0.22500	0.27000	16.02166	15.45125	2	False	-0.11200
129219A	0.38000	0.38000	14.22192	14.22192	1	False	-0.22319
401318	0.62000	0.63500	11.77808	11.61950	2	False	-0.84140
401320	0.73000	0.74000	10.54875	10.42662	1	False	-0.77902
401802	0.46000	0.46000	13.40173	13.40173	1	False	-0.25969
401808	0.59000	0.59000	12.08982	12.08982	1	False	-0.31808
401814	0.70000	0.69000	10.90240	11.01660	1	False	-0.00405
401816	0.57000	0.59000	12.29450	12.08982	1	False	-0.96653
402696	0.68000	0.68000	11.12920	11.12920	1	False	-0.36083
402702	0.49000	0.51000	13.10028	12.89972	1	False	-0.91740
402708	0.55000	0.56000	12.49735	12.39612	1	False	-0.62516
402757	0.62000	0.63000	11.77808	11.67259	1	False	-0.67085
402759	0.32000	0.30000	14.87080	15.09760	1	False	0.53433
402763	0.60000	0.59000	11.98661	12.08982	1	False	0.00889
402784	0.74000	0.72000	10.42662	10.66863	1	False	0.38540
407724	0.58000	0.63000	12.19243	11.67259	1	False	-0.10403
407738	0.43000	0.51000	13.70550	12.89972	1	False	0.74721
407741	0.54000	0.72000	12.59827	10.66863	2	True	4.40699
407754	0.82000	0.78000	9.33854	9.91123	1	False	1.39929
407760	0.65000	0.67000	11.45872	11.24035	1	False	-1.03988
407765	0.67000	0.69000	11.24035	11.01660	1	False	-1.01288
407798	0.30000	0.24500	15.09760	15.76124	2	False	1.94777
407845	0.16500	0.24250	16.89646	15.79313	4	False	1.56111
409401	0.56000	0.56000	12.39612	12.39612	1	False	-0.30445
409409	0.51000	0.49000	12.89972	13.10028	1	False	0.36226
409464	0.43000	0.42000	13.70550	13.80757	1	False	0.08176
409493	0.54000	0.57000	12.59827	12.29450	1	False	-0.81627
409501	0.57000	0.61000	12.29450	11.88272	1	False	-0.45573
409517	0.44500	0.45500	13.55322	13.45215	2	False	-0.57762
409613	0.28500	0.30000	15.27221	15.09760	2	False	-0.73738
409622	0.71000	0.75000	10.78646	10.30204	1	False	-0.15525
409628	0.69000	0.73000	11.01660	10.54875	1	False	-0.21872
409639	0.76000	0.79000	10.17479	9.77432	1	False	-0.39771
409660	0.89000	0.91000	8.09389	7.63698	1	False	-0.12380
409672	0.38000	0.41000	14.22192	13.91018	1	False	-0.86289

Table 2.5.5 (continued)
 Delta Analysis
 English Language Arts Grade 7

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
416739	0.63000	0.60000	11.67259	11.98661	1	False	0.67219
416762	0.45000	0.47000	13.50265	13.30108	1	False	-0.90275
416766	0.63000	0.72000	11.67259	10.66863	1	False	1.47436
416774	0.43500	0.48500	13.65463	13.15043	2	False	-0.21935
416793	0.24250	0.29500	15.79313	15.15534	4	False	0.11464

Table 2.5.6
Delta Analysis
English Language Arts Grade 8

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
131175A	0.70000	0.74000	10.90240	10.42662	1	False	0.54504
131191A	0.58000	0.55000	12.19243	12.49735	1	False	0.13218
131192A	0.70000	0.74000	10.90240	10.42662	1	False	0.54504
131193A	0.58000	0.60000	12.19243	11.98661	1	False	-0.44021
131194A	0.41000	0.40000	13.91018	14.01339	1	False	-0.56815
131195A	0.76000	0.75000	10.17479	10.30204	1	False	-0.53187
131197A	0.26500	0.29500	15.51202	15.15534	4	False	0.05638
131198A	0.39500	0.36000	14.06524	14.43384	2	False	0.38549
402077	0.32000	0.34000	14.87080	14.64985	1	False	-0.42176
402079	0.51000	0.51000	12.89972	12.89972	2	False	-0.95173
402111	0.83000	0.84000	9.18334	9.02217	1	False	-0.56007
402116	0.78000	0.78000	9.91123	9.91123	1	False	-0.99167
402118	0.64000	0.64000	11.56616	11.56616	1	False	-0.96955
402129	0.75000	0.75000	10.30204	10.30204	1	False	-0.98645
402133	0.52000	0.50000	12.79939	13.00000	1	False	-0.23374
402209	0.66000	0.66000	11.35015	11.35015	1	False	-0.97244
402213	0.60000	0.58000	11.98661	12.19243	1	False	-0.22595
409754	0.60000	0.55000	11.98661	12.49735	1	False	0.86741
409773	0.44000	0.46000	13.60388	13.40173	1	False	-0.47224
409789	0.51000	0.44000	12.89972	13.60388	1	False	1.57311
409803	0.58000	0.51000	12.19243	12.89972	1	False	1.57494
409826	0.53000	0.51000	12.69892	12.89972	1	False	-0.23440
409832	0.19500	0.20000	16.43847	16.36648	2	False	-0.97682
418826	0.52000	0.52500	12.79939	12.74917	2	False	-1.00625
420872	0.66000	0.67000	11.35015	11.24035	1	False	-0.77322
420905	0.39000	0.39000	14.11728	14.11728	1	False	-0.93546
420913	0.43000	0.42000	13.70550	13.80757	1	False	-0.57495
420925	0.56000	0.52000	12.39612	12.79939	1	False	0.48750
420929	0.44000	0.48000	13.60388	13.20061	1	False	0.24891
420946	0.70000	0.65000	10.90240	11.45872	1	False	1.01634
420952	0.61000	0.71000	11.88272	10.78646	1	False	2.75677
420970	0.66000	0.67000	11.35015	11.24035	1	False	-0.77322
420986	0.44500	0.54500	13.55322	12.54785	2	False	2.40853
420990	0.25750	0.31000	15.60429	14.98340	4	False	1.00250

Table 2.5.7
Delta Analysis
Mathematics Grade 3

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
123976A	0.54000	0.46000	12.59827	13.40173	1	False	0.94191
124364A	0.54000	0.68000	12.59827	11.12920	1	True	3.24144
124395A	0.76000	0.72000	10.17479	10.66863	1	False	-0.68763
124663A	0.41000	0.38000	13.91018	14.22192	1	False	-0.19682
125052A	0.39000	0.34000	14.11728	14.64985	1	False	0.53819
125231A	0.43000	0.46000	13.70550	13.40173	1	False	-0.64110
126293A	0.68000	0.74000	11.12920	10.42662	1	False	1.30474
400021	0.54000	0.57000	12.59827	12.29450	1	False	-0.33018
400614	0.65000	0.57000	11.45872	12.29450	1	False	0.72096
407640	0.45000	0.43000	13.50265	13.70550	1	False	-0.64501
407672	0.37000	0.34000	14.32741	14.64985	1	False	-0.04687
409896	0.50000	0.53000	13.00000	12.69892	1	False	-0.45121
411093	0.77000	0.79000	10.04461	9.77432	1	False	0.28435
411097	0.69000	0.68000	11.01660	11.12920	1	False	-1.16219
411145	0.82000	0.76000	9.33854	10.17479	1	False	0.12701
411231	0.32000	0.37000	14.87080	14.32741	1	False	-0.23390
411254	0.57000	0.57000	12.29450	12.29450	1	False	-1.17590
411494	0.84000	0.81000	9.02217	9.48841	1	False	-1.09588
411623	0.85000	0.81000	8.85427	9.48841	1	False	-0.62842
411633	0.85000	0.80000	8.85427	9.63352	1	False	-0.18369
411729	0.48000	0.44000	13.20061	13.60388	1	False	-0.11557
412628	0.51000	0.54000	12.89972	12.59827	1	False	-0.42189
413222	0.62000	0.56000	11.77808	12.39612	1	False	0.14328
414589	0.32000	0.43000	14.87080	13.70550	1	False	1.67226
417030	0.56000	0.54000	12.39612	12.59827	1	False	-0.95791

Table 2.5.8
Delta Analysis
Mathematics Grade 4

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
124741A	0.55000	0.57000	12.49735	12.29450	1	False	-0.91941
124779A	0.42000	0.55000	13.80757	12.49735	1	False	2.89361
124969A	0.41000	0.42000	13.91018	13.80757	1	False	-1.17104
126060A	0.48000	0.40000	13.20061	14.01339	1	False	1.70791
127117A	0.51000	0.53000	12.89972	12.69892	1	False	-0.90173
127584A	0.51000	0.47000	12.89972	13.30108	1	False	0.33938
127588A	0.28000	0.27000	15.33137	15.45125	1	False	-0.75799
400066	0.47000	0.49000	13.30108	13.10028	1	False	-0.87722
400447	0.59000	0.66000	12.08982	11.35015	1	False	0.86535
400449	0.61000	0.64000	11.88272	11.56616	1	False	-0.57363
400466	0.43000	0.46000	13.70550	13.40173	1	False	-0.50544
400468	0.35000	0.38000	14.54128	14.22192	1	False	-0.40181
400748	0.38000	0.47000	14.22192	13.30108	1	False	1.60631
400815	0.42000	0.38000	13.80757	14.22192	1	False	0.32773
400839	0.41000	0.40000	13.91018	14.01339	1	False	-0.72741
400920	0.50000	0.52000	13.00000	12.79939	1	False	-0.89625
407852	0.23000	0.25000	15.95539	15.69796	1	False	-0.52421
407867	0.60000	0.56000	11.98661	12.39612	1	False	0.42264
408032	0.68000	0.68000	11.12920	11.12920	1	False	-0.90547
408040	0.42000	0.42000	13.80757	13.80757	1	False	-1.06906
408261	0.24000	0.27000	15.82521	15.45125	1	False	-0.13934
408276	0.40000	0.36000	14.01339	14.43384	1	False	0.33572
409954	0.33000	0.28000	14.75965	15.33137	1	False	0.80006
411024	0.47000	0.43000	13.30108	13.70550	1	False	0.32519
411117	0.48000	0.54000	13.20061	12.59827	1	False	0.47027
411163	0.67000	0.61000	11.24035	11.88272	1	False	1.25322
411858	0.86000	0.86000	8.67872	8.67872	1	False	-0.75580
413801	0.59000	0.63000	12.08982	11.67259	1	False	-0.22160

Table 2.5.9
Delta Analysis
Mathematics Grade 5

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
124038A	0.38000	0.38000	14.22192	14.22192	1	False	-0.89319
124675A	0.45000	0.46000	13.50265	13.40173	1	False	-0.68334
128316A	0.39000	0.41000	14.11728	13.91018	1	False	-0.20477
400228	0.59000	0.49000	12.08982	13.10028	1	False	2.58203
400373	0.30000	0.25000	15.09760	15.69796	1	False	0.61460
400523	0.50000	0.50000	13.00000	13.00000	1	False	-1.04386
400682	0.35000	0.40000	14.54128	14.01339	1	False	0.97175
400718	0.48000	0.50000	13.20061	13.00000	1	False	-0.39921
408471	0.35000	0.42000	14.54128	13.80757	1	False	1.67544
408477	0.38000	0.35000	14.22192	14.54128	1	False	-0.18159
408493	0.63000	0.67000	11.67259	11.24035	1	False	0.10556
408496	0.31000	0.33000	14.98340	14.75965	1	False	0.01494
408514	0.36000	0.35000	14.43384	14.54128	1	False	-0.94596
411240	0.46000	0.44000	13.40173	13.60388	1	False	-0.42822
411270	0.63000	0.61000	11.67259	11.88272	1	False	-0.07591
411804	0.60000	0.57000	11.98661	12.29450	1	False	0.19931
411976	0.35000	0.35000	14.54128	14.54128	1	False	-0.83317
412026	0.59000	0.61000	12.08982	11.88272	1	False	-0.58581
413850	0.53000	0.46000	12.69892	13.40173	1	False	1.41571
414837	0.47000	0.46000	13.30108	13.40173	1	False	-0.75629
414953	0.58000	0.67000	12.19243	11.24035	1	False	1.98063
415106	0.36000	0.33000	14.43384	14.75965	1	False	-0.19933
415122	0.30000	0.28000	15.09760	15.33137	1	False	-0.63882
415335	0.45000	0.45000	13.50265	13.50265	1	False	-1.02836
415373	0.27000	0.27000	15.45125	15.45125	1	False	-0.66215

Table 2.5.10
Delta Analysis
Mathematics Grade 6

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
125468A	0.41000	0.41000	13.91018	13.91018	1	False	-0.42369
127166A	0.74000	0.73000	10.42662	10.54875	1	False	-0.32789
127167A	0.35000	0.35000	14.54128	14.54128	1	False	-0.56635
128195A	0.38000	0.36000	14.22192	14.43384	1	False	-0.39590
400114	0.43000	0.41000	13.70550	13.91018	1	False	-0.55358
400197	0.60000	0.60000	11.98661	11.98661	1	False	0.01115
400206	0.56000	0.52000	12.39612	12.79939	1	False	0.27508
400411	0.44000	0.44000	13.60388	13.60388	1	False	-0.35445
400617	0.39000	0.37000	14.11728	14.32741	1	False	-0.42961
400628	0.51000	0.52000	12.89972	12.79939	1	False	0.37300
400695	0.70000	0.70000	10.90240	10.90240	1	False	0.25624
406067	0.86000	0.83000	8.67872	9.18334	1	False	0.00875
406090	0.42000	0.42000	13.80757	13.80757	1	False	-0.40049
408317	0.30000	0.36000	15.09760	14.43384	1	True	3.06713
408319	0.64000	0.60000	11.56616	11.98661	1	False	0.18478
408332	0.38000	0.36000	14.22192	14.43384	1	False	-0.39590
411844	0.81000	0.77000	9.48841	10.04461	1	False	0.48392
412060	0.71000	0.72000	10.78646	10.66863	1	False	0.94976
412115	0.50000	0.48000	13.00000	13.20061	1	False	-0.73611
412144	0.53000	0.49000	12.69892	13.10028	1	False	0.33272
412302	0.77000	0.73000	10.04461	10.54875	1	False	0.31480
412320	0.64000	0.63000	11.56616	11.67259	1	False	-0.49653
412431	0.42000	0.33000	13.80757	14.75965	1	True	3.70237
412455	0.38000	0.37000	14.22192	14.32741	1	False	-0.99862
413996	0.20000	0.20000	16.36648	16.36648	1	False	-0.97896
414004	0.62000	0.62000	11.77808	11.77808	1	False	0.05829
414013	0.51000	0.50000	12.89972	13.00000	1	False	-0.76318
414022	0.52000	0.51000	12.79939	12.89972	1	False	-0.74086
414079	0.56000	0.55000	12.39612	12.49735	1	False	-0.65475
414094	0.33000	0.32000	14.75965	14.87080	1	False	-0.84505
415259	0.55000	0.56000	12.49735	12.39612	1	False	0.46901
415351	0.41000	0.38000	13.91018	14.22192	1	False	0.09902
417061	0.42000	0.40000	13.80757	14.01339	1	False	-0.52410

Table 2.5.11
Delta Analysis
Mathematics Grade 7

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
123969A	0.40000	0.45000	14.01339	13.50265	1	False	1.28222
123993A	0.46000	0.47000	13.40173	13.30108	1	False	-0.68268
124136A	0.35000	0.34000	14.54128	14.64985	1	False	-1.18915
124343A	0.34000	0.32000	14.64985	14.87080	1	False	-0.72032
124351A	0.67000	0.62000	11.24035	11.77808	1	False	1.53761
124358A	0.49000	0.49000	13.10028	13.10028	1	False	-1.20309
124505A	0.26000	0.20000	15.57338	16.36648	1	False	1.57337
124508A	0.71000	0.77000	10.78646	10.04461	1	False	1.48954
124510A	0.47000	0.46000	13.30108	13.40173	1	False	-0.91159
124647A	0.59000	0.58000	12.08982	12.19243	1	False	-0.59775
124715A	0.76000	0.75000	10.17479	10.30204	1	False	-0.00637
400323	0.28000	0.27000	15.33137	15.45125	1	False	-1.17025
400873	0.45000	0.42000	13.50265	13.80757	1	False	-0.06040
400958	0.47000	0.50000	13.30108	13.00000	1	False	0.17694
400979	0.48000	0.53000	13.20061	12.69892	1	False	1.03745
400983	0.70000	0.77000	10.90240	10.04461	1	False	2.03068
400990	0.56000	0.59000	12.39612	12.08982	1	False	-0.02803
406163	0.42000	0.43000	13.80757	13.70550	1	False	-0.57413
408567	0.31000	0.35000	14.98340	14.54128	1	False	1.22363
408597	0.59000	0.56000	12.08982	12.39612	1	False	0.30168
408632	0.26000	0.27000	15.57338	15.45125	1	False	-0.04063
408640	0.31000	0.29000	14.98340	15.21354	1	False	-0.76377
408731	0.85000	0.85000	8.85427	8.85427	1	False	-0.23551
408734	0.66000	0.69000	11.35015	11.01660	1	False	-0.17129
408770	0.64000	0.64000	11.56616	11.56616	1	False	-0.91886
408783	0.41000	0.40000	13.91018	14.01339	1	False	-1.05380
408790	0.25000	0.22000	15.69796	16.08877	1	False	-0.23435
410223	0.53000	0.54000	12.69892	12.59827	1	False	-0.85978
410239	0.69000	0.69000	11.01660	11.01660	1	False	-0.78038
412082	0.50000	0.45000	13.00000	13.50265	1	False	0.93929
412118	0.54000	0.53000	12.59827	12.69892	1	False	-0.73449
412147	0.44000	0.45000	13.60388	13.50265	1	False	-0.62920
412513	0.74000	0.69000	10.42662	11.01660	1	False	1.97338

Table 2.5.12
Delta Analysis
Mathematics Grade 8

Item Id	Old P	New P	Old Delta	New Delta	Max	Discard	Std Dist
126030A	0.35000	0.38000	14.54128	14.22192	1	False	-0.17791
126395A	0.67000	0.74000	11.24035	10.42662	1	False	0.28445
126885A	0.74000	0.78000	10.42662	9.91123	1	False	-0.62116
127148A	0.24000	0.23000	15.82521	15.95539	1	False	-0.98193
127737A	0.77000	0.76000	10.04461	10.17479	1	False	0.09196
400177	0.33000	0.33000	14.75965	14.75965	1	False	-0.90404
400191	0.27000	0.29000	15.45125	15.21354	1	False	-0.17279
400345	0.34000	0.32000	14.64985	14.87080	1	False	-0.71627
400730	0.28000	0.24000	15.33137	15.82521	1	False	-0.20630
400803	0.77000	0.77000	10.04461	10.04461	1	False	-0.22390
400985	0.35000	0.37000	14.54128	14.32741	1	False	-0.43387
401024	0.27000	0.25000	15.45125	15.69796	1	False	-0.83273
401027	0.29000	0.24000	15.21354	15.82521	1	False	0.10591
401030	0.35000	0.33000	14.54128	14.75965	1	False	-0.69827
401033	0.32000	0.35000	14.87080	14.54128	1	False	-0.07968
408518	0.39000	0.48000	14.11728	13.20061	1	False	1.17670
408651	0.32000	0.27000	14.87080	15.45125	1	False	0.10672
408795	0.31000	0.33000	14.98340	14.75965	1	False	-0.31116
409239	0.64000	0.77000	11.56616	10.04461	1	False	2.07469
412449	0.69000	0.67000	11.01660	11.24035	1	False	0.10194
412646	0.44000	0.48000	13.60388	13.20061	1	False	-0.18367
412662	0.42000	0.43000	13.80757	13.70550	1	False	-0.86898
412703	0.65000	0.54000	11.45872	12.59827	1	False	2.22530
412756	0.51000	0.69000	12.89972	11.01660	1	True	3.24983
412946	0.49000	0.47000	13.10028	13.30108	1	False	-0.41908
413229	0.79000	0.82000	9.77432	9.33854	1	False	-0.96002
413290	0.68000	0.70000	11.12920	10.90240	1	False	-1.01645
413314	0.62000	0.54000	11.77808	12.59827	1	False	1.37909
413335	0.71000	0.69000	10.78646	11.01660	1	False	0.16883
414370	0.40000	0.38000	14.01339	14.22192	1	False	-0.60424
414805	0.56000	0.54000	12.39612	12.59827	1	False	-0.25857
414880	0.43000	0.40000	13.70550	14.01339	1	False	-0.29440

Section 2.6

Tabled B/B Analysis Results

Table 2.6.1
b/b Analysis
English Language Arts Grade 3

Item Id	Old b	New b	Std Dist	Flag
129871A	1.41513	1.57130	-1.02868	False
401182	-0.46622	-0.58917	-0.32892	False
401685	0.44275	0.51837	-0.23347	False
406766	1.41916	1.91320	1.26477	False
406771	0.26598	0.11078	-0.95287	False
406787	-0.19715	-0.09113	0.85738	False
406898	-0.75332	-1.11198	-0.97656	False
410374	0.43755	0.45282	-0.63694	False
410387	-0.59324	-0.83436	-0.95753	False
410396	1.42342	1.24844	0.78069	False
410415	-0.44819	-0.53218	-0.08873	False
410420	-0.13157	-0.17216	-0.23081	False
410432	-0.60211	-0.77154	-0.45746	False
410639	0.60071	0.03067	2.33231	False
410703	-1.20584	-1.27088	1.08688	False
410708	0.05734	0.42196	2.26544	False
410723	0.18043	-0.13297	0.00541	False
410735	1.99823	2.29748	-0.86063	False
418618	-0.70076	-0.84495	-0.14944	False
418622	0.38403	0.22235	-0.74569	False
418629	0.44309	-0.18821	2.53140	False
418639	0.59585	0.54705	-1.22116	False
418643	-0.30187	-0.81782	0.71737	False
418646	-0.25941	-0.35164	-0.40559	False
418652	0.64447	0.34993	0.51814	False
418659	0.77000	0.92376	-0.15386	False
418677	0.71120	0.59819	-0.62489	False
418699	2.47951	2.57003	0.43306	False
421611	0.52408	0.59790	-0.35807	False
421614	0.42667	0.45816	-0.51154	False
421623	0.17098	0.16564	-0.40892	False
421651	-0.19122	-0.50670	-0.49385	False
421656	0.72489	0.44983	0.49668	False
421661	-0.12685	-0.05975	0.49544	False
421672	0.08246	-0.20784	-0.28711	False
421674	0.79919	0.73393	-0.82825	False
421676	0.03580	-0.59861	1.98991	False
421681	0.82660	0.86035	-1.04865	False
421683	0.26503	0.24726	-0.62342	False
421895	1.14892	1.20369	-1.16185	False

Table 2.6.2
b/b Analysis
English Language Arts Grade 4

Item Id	Old b	New b	Std Dist	Flag
128683A	1.07238	0.87899	-0.70754	False
128686A	1.76681	1.58026	-0.30484	False
128687A	-0.08068	-0.14823	-0.41063	False
128689A	0.75230	0.67940	-0.94973	False
128690A	1.16607	1.51157	0.52376	False
128692A	1.06360	1.91270	2.67000	False
128768A	1.50173	1.60114	-0.70227	False
129528A	1.25830	1.33451	-0.64713	False
130668A	-0.33457	-0.17464	0.68769	False
130675A	-0.19228	-0.30305	-0.52010	False
130704A	0.05506	0.00647	-0.41646	False
130706A	-0.17803	-0.66935	-0.25151	False
130709A	-0.15947	-0.62366	-0.35218	False
130710A	-1.02435	-1.49580	-0.85894	False
130712A	-1.49745	-1.77430	-0.39688	False
130728A	1.59920	1.52989	-0.89371	False
401759	0.16576	0.17845	-0.23174	False
402538	-0.48631	-0.47974	0.14765	False
402587	-0.33183	-0.43456	-0.40024	False
410868	1.37621	1.48964	-0.56639	False
410911	0.98194	-0.33719	3.89183	True
411246	1.87200	1.25804	1.52800	False
411251	0.21183	-0.04862	-0.96431	False
411256	0.94558	0.57784	-0.06522	False
411261	0.73777	0.33191	-0.03655	False
411268	-0.43242	-0.29968	0.63598	False
411283	0.64376	0.01370	0.83229	False
412876	-0.73469	-1.00042	-0.82430	False
412895	1.54701	1.25676	-0.01241	False
420633	-0.27001	-0.14860	0.48833	False
420639	0.14178	-0.67903	1.30959	False
420642	-1.18340	-1.19520	0.50432	False
420656	0.61131	0.34509	-0.69251	False
420671	-0.81166	-0.84932	0.16666	False
420675	2.11401	2.08299	-0.73255	False
420698	0.64912	0.66077	-0.53604	False
420714	0.13997	-0.19175	-0.71417	False
420723	-0.01691	0.03361	0.03808	False
420785	-1.41027	-1.82622	-1.02624	False
420820	1.40699	0.82142	1.12199	False

Table 2.6.2 (continued)
b/b Analysis
English Language Arts Grade 4

Item Id	Old b	New b	Std Dist	Flag
422664	-0.10863	-0.57017	-0.33159	False

Table 2.6.3
b/b Analysis
English Language Arts Grade 5

Item Id	Old b	New b	Std Dist	Flag
129003A	0.05614	-0.27559	-0.45491	False
129009A	1.60130	1.35517	-0.55420	False
129011A	-1.62621	-1.32187	0.92491	False
129012A	0.07885	0.24113	0.15150	False
129015A	-0.05885	-0.78063	0.98486	False
129019A	0.82090	0.27730	0.44508	False
129174A	0.05920	0.01471	-0.61763	False
129178A	0.69227	0.12612	0.51093	False
129179A	0.41940	0.32054	-0.87195	False
129193A	1.22173	1.70574	1.18968	False
129195A	0.85387	0.42874	0.00750	False
129196A	1.78804	1.71575	-0.96786	False
129198A	0.78539	0.48361	-0.46276	False
129201A	-0.83568	-0.90116	-0.56842	False
129760A	1.19781	0.80368	-0.05920	False
401394	0.11771	0.10559	-0.50512	False
401398	-0.56676	-0.44362	0.09741	False
402196	-1.63108	-1.48619	0.33033	False
402211	-0.33869	-0.26452	-0.11792	False
402279	-0.64832	-0.42110	0.49760	False
402284	-0.53061	-0.91823	-0.32990	False
402286	-0.06423	0.07897	0.10066	False
402288	1.07999	0.24266	1.57858	False
402908	1.13235	1.00696	-1.07181	False
410413	0.06356	0.00391	-0.67484	False
410428	-0.02703	0.04427	-0.17306	False
410440	-1.06420	-1.18971	-0.75995	False
410563	0.92307	0.75961	-0.95952	False
410584	0.16435	0.17094	-0.44192	False
410588	0.39618	0.65276	0.45831	False
416506	-0.07828	-0.70872	0.64109	False
416518	-0.07987	0.07520	0.14721	False
416527	1.10219	0.90533	-0.80929	False
419292	-0.45908	-0.44478	-0.32427	False
419298	1.60813	-0.07250	4.80213	True
419302	0.20513	-0.35803	0.43032	False
419309	0.60379	0.73097	-0.05437	False
419311	0.23163	0.10960	-0.93168	False
419321	-0.95592	-1.13195	-0.96399	False
419405	-0.93963	-1.17307	-0.96380	False

Table 2.6.3 (continued)
 b/b Analysis
 English Language Arts Grade 5

Item Id	Old b	New b	Std Dist	Flag
419416	1.36814	1.36127	-0.66378	False
419419	0.87614	1.05150	0.08667	False
419421	-1.44277	-1.13817	0.89973	False
419423	0.43743	-0.26740	0.99233	False
422629	1.18592	1.03656	-0.97468	False

Table 2.6.4
b/b Analysis
English Language Arts Grade 6

Item Id	Old b	New b	Std Dist	Flag
129251A	0.24902	-0.04363	-0.29106	False
129252A	-0.41875	-0.76477	-0.45454	False
129254A	-1.25761	-1.49602	-0.68334	False
129255A	-0.67527	-1.11457	-0.17570	False
129257A	-1.18647	-1.42314	-0.71928	False
129258A	0.58533	0.50850	-1.06745	False
129259A	0.70431	0.57895	-0.79409	False
129379A	1.03588	0.09859	3.22289	True
131520A	0.65772	0.50094	-0.67548	False
132116A	0.29173	-0.49834	2.07044	False
132117A	-0.37374	-0.90762	0.45523	False
132118A	0.37925	0.31547	-0.87842	False
132119A	0.39778	0.21818	-0.72952	False
132122A	1.37567	1.41059	-1.03287	False
401202	-0.52444	-0.59133	-0.33274	False
401231	0.29807	0.31196	-0.46349	False
401886	-1.31070	-1.38564	0.11694	False
401890	-1.40897	-1.45357	0.32029	False
402027	0.00087	-0.03870	-0.53018	False
409362	-0.80131	-0.71571	0.55474	False
409385	0.57404	0.77759	0.25573	False
409396	-0.05313	0.22301	0.98532	False
409447	1.10142	1.09158	-1.07295	False
409458	0.18824	0.13694	-0.70141	False
409472	0.08149	0.28554	0.56345	False
409541	0.43736	0.60767	0.18443	False
409546	0.14093	0.07748	-0.72912	False
409551	-0.04545	-0.05044	-0.33914	False
409556	0.44345	0.12675	-0.05762	False
409568	0.17616	-0.37420	0.87352	False
419741	-0.66399	-0.28841	1.83085	False
419743	0.83079	0.05916	2.31809	False
419745	-1.44638	-1.72347	-0.74788	False
419747	0.09944	-0.39006	0.54026	False
419750	1.58687	1.63229	-1.04860	False
419754	0.41864	0.51315	-0.15979	False
420218	-0.85786	-1.05023	-0.71506	False
420235	0.12988	-0.11735	-0.57814	False
420260	1.94846	1.89270	-0.34945	False
420298	0.31511	0.65050	1.03515	False

Table 2.6.5
b/b Analysis
English Language Arts Grade 7

Item Id	Old b	New b	Std Dist	Flag
128730A	-0.53719	-1.01159	-0.92391	False
128731A	0.05216	-0.03609	-0.67804	False
128753A	-0.75282	-0.91425	-0.18211	False
128756A	-0.63265	-0.94753	-1.11789	False
128757A	0.08455	-0.27067	-0.86936	False
129214A	1.27192	1.05876	-0.31670	False
129219A	1.21879	1.25268	-1.31247	False
401318	-0.53638	-0.58494	0.17312	False
401320	-0.78563	-1.00391	-0.44430	False
401802	0.36223	0.38452	-0.43734	False
401808	0.14743	0.06229	-0.76584	False
401814	-0.89918	-1.22452	-0.88150	False
401816	0.23152	0.25266	-0.30054	False
402696	-0.89600	-0.92284	0.67994	False
402702	0.84073	0.75687	-1.46572	False
402708	0.11377	0.17553	0.04108	False
402757	-0.16753	0.03897	1.10726	False
402759	1.23037	1.37048	-0.76825	False
402763	-0.11984	0.03607	0.78992	False
402784	-0.93365	-0.82314	1.44114	False
407724	0.11517	-0.30766	-0.48145	False
407738	0.82774	0.40888	0.27635	False
407741	-0.27869	-1.39767	2.73781	False
407754	-1.18554	-1.27224	0.68249	False
407760	-0.31495	-1.08664	0.87750	False
407765	0.15255	-0.71472	1.88941	False
407798	1.00704	1.47986	1.22003	False
407845	1.73435	1.40285	0.80899	False
409401	0.35386	-0.01145	-0.52219	False
409409	0.22358	0.17447	-0.66016	False
409464	0.98423	0.89000	-1.25456	False
409493	0.75900	0.30189	0.40177	False
409501	0.06273	-0.29338	-0.88853	False
409517	0.25866	0.18832	-0.80979	False
409613	1.24909	1.15508	-0.96630	False
409622	-0.52550	-1.12048	-0.27898	False
409628	-0.50838	-1.31979	0.87438	False
409639	-0.92169	-0.79690	1.50294	False
409660	-1.25707	-1.45812	0.16116	False
409672	1.62577	1.55007	-0.65071	False

Table 2.6.5 (continued)
 b/b Analysis
 English Language Arts Grade 7

Item Id	Old b	New b	Std Dist	Flag
416739	0.10316	0.11931	-0.18645	False
416762	1.00151	0.74823	-0.40184	False
416766	-0.04341	-1.03794	2.34246	False
416774	0.32259	0.02248	-0.89817	False
416793	1.53776	1.23274	0.45536	False

Table 2.6.6
b/b Analysis
English Language Arts Grade 8

Item Id	Old b	New b	Std Dist	Flag
131175A	-0.35747	-1.04844	1.22564	False
131191A	0.15974	0.04131	-1.33700	False
131192A	-0.63494	-1.13571	0.08075	False
131193A	0.06312	-0.04191	-1.21454	False
131194A	1.03114	1.35293	0.49184	False
131195A	-1.01830	-1.12702	-0.64725	False
131197A	1.22543	1.03942	-0.55574	False
131198A	0.71774	0.88909	-0.12468	False
402077	1.40773	1.24518	-0.57951	False
402079	-0.05963	-0.06296	-0.61626	False
402111	-1.78352	-2.03429	-0.97483	False
402116	-1.26053	-1.23820	0.16928	False
402118	-0.16095	-0.19277	-0.71025	False
402129	-0.78822	-0.71926	0.15688	False
402133	0.30703	0.44239	-0.09006	False
402209	-0.26069	-0.18766	-0.10799	False
402213	-0.20309	0.04751	0.78912	False
409754	-0.13867	0.08238	0.59969	False
409773	0.55668	0.46076	-1.38948	False
409789	0.36032	0.61730	0.51687	False
409803	0.28772	0.81407	1.96454	False
409826	1.34414	0.90966	0.80767	False
409832	2.70386	2.77509	-1.09869	False
418826	-0.03645	-0.16164	-1.26593	False
420872	-0.67333	-0.87113	-1.30009	False
420905	1.22745	0.71530	1.15044	False
420913	1.21889	0.73124	1.01771	False
420925	0.32324	0.24822	-1.19874	False
420929	1.44090	1.12158	0.25809	False
420946	-0.41677	-0.21242	0.66323	False
420952	0.01197	-0.92386	2.70618	False
420970	-0.44396	-0.79031	-0.62298	False
420986	0.27765	-0.25460	0.74034	False
420990	1.34981	0.97558	0.49575	False

Table 2.6.7
b/b Analysis
Mathematics Grade 3

Item Id	Old b	New b	Std Dist	Flag
123976A	0.45272	0.78258	1.11985	False
124364A	-0.26869	-0.49485	-0.52240	False
124395A	-0.77935	-0.51433	0.91552	False
124663A	0.77678	0.87725	-0.37357	False
125052A	1.29668	1.22132	-1.21154	False
125231A	1.25773	1.10860	-0.75482	False
126293A	-0.30834	-0.75043	0.82666	False
400021	0.45194	0.35752	-1.23088	False
400614	-0.11448	0.20744	1.16333	False
407640	1.98393	1.81203	-0.49238	False
407672	2.19779	1.96249	-0.05917	False
409896	0.43047	0.07901	0.37926	False
411093	-0.75654	-1.10020	0.13498	False
411097	-0.08110	-0.38018	-0.03375	False
411145	-0.80501	-0.49564	1.19817	False
411231	0.94625	0.81629	-0.92642	False
411254	0.20924	0.05382	-0.88786	False
411494	-0.97641	-1.13552	-1.05979	False
411623	-1.11442	-1.06768	-0.39969	False
411633	-1.09402	-1.00538	-0.14000	False
411729	0.94321	0.95463	-0.96000	False
412628	0.45637	-0.27916	2.79469	False
413222	0.06620	0.43194	1.40870	False
414589	0.69101	0.47444	-0.42469	False
417030	0.10399	0.17239	-0.46419	False

Table 2.6.8
b/b Analysis
Mathematics Grade 4

Item Id	Old b	New b	Std Dist	Flag
124741A	0.30512	0.19932	-1.00240	False
124779A	-0.00125	0.01400	0.39355	False
124969A	1.29888	1.28145	-0.91371	False
126060A	0.88789	1.10550	0.29492	False
127117A	1.20375	0.69320	2.44158	False
127584A	0.88005	0.93741	-0.83550	False
127588A	1.50883	1.97282	0.97607	False
400066	0.89652	0.69247	-0.27980	False
400447	0.20478	-0.26159	0.39226	False
400449	0.07542	-0.12729	-1.29555	False
400466	0.77919	0.46853	0.27764	False
400468	1.29836	1.17399	-0.15116	False
400748	0.85129	0.93203	-0.61867	False
400815	1.16931	1.53061	0.83227	False
400839	1.13773	1.30738	-0.48111	False
400920	0.55851	0.13697	0.68619	False
407852	1.59626	1.77671	-1.19988	False
407867	0.74736	0.42805	0.28415	False
408032	-0.35030	-0.32569	1.06622	False
408040	1.06300	0.95419	-0.67076	False
408261	2.35309	2.34274	0.86554	False
408276	1.24269	1.37628	-0.92073	False
409954	1.66099	1.79971	-1.39996	False
411024	0.70664	0.82623	-0.09025	False
411117	0.76953	0.28836	1.47815	False
411163	-0.13643	0.01585	1.60644	False
411858	-1.34061	-1.90274	-1.40366	False
413801	-0.03606	-0.13088	-0.33183	False

Table 2.6.9
b/b Analysis
Mathematics Grade 5

Item Id	Old b	New b	Std Dist	Flag
124038A	1.14359	1.01357	-0.40998	False
124675A	0.80768	0.56028	0.14881	False
128316A	1.04127	1.07839	-0.63555	False
400228	0.15189	0.44989	2.40845	False
400373	1.72232	1.88394	-0.40062	False
400523	0.39470	0.22022	-0.88311	False
400682	1.35698	1.03220	1.36619	False
400718	0.57008	0.36276	-0.43007	False
408471	1.19908	0.92749	0.77137	False
408477	1.39952	1.59657	0.23532	False
408493	-0.01753	-0.38241	0.16940	False
408496	1.68071	1.64235	-0.54360	False
408514	1.29529	1.25265	-0.93430	False
411240	0.69255	0.45207	-0.03277	False
411270	0.14942	-0.09279	-0.61736	False
411804	0.26059	0.38042	0.87888	False
411976	1.15401	1.21844	-0.54364	False
412026	-0.00959	-0.14799	-0.86684	False
413850	0.86809	0.83369	-1.01071	False
414837	1.29291	0.90132	1.82427	False
414953	-0.35103	-0.22629	1.59146	False
415106	1.00447	1.03852	-0.61931	False
415122	1.44372	1.44706	-1.13463	False
415335	1.24744	1.49761	0.82317	False
415373	1.98455	2.06573	-1.15481	False

Table 2.6.10
b/b Analysis
Mathematics Grade 6

Item Id	Old b	New b	Std Dist	Flag
125468A	1.15126	1.18064	-0.67879	False
127166A	-1.27535	-1.26426	-0.83551	False
127167A	1.00537	1.10231	-0.39581	False
128195A	0.95697	1.03198	-0.49909	False
400114	1.95576	1.79197	-0.44334	False
400197	-0.05622	0.19565	0.16641	False
400206	0.28328	0.33111	-0.70029	False
400411	0.52620	0.92341	0.88207	False
400617	1.54635	1.73705	0.08558	False
400628	1.58641	0.84184	2.18293	False
400695	-0.37694	-0.28449	-0.58064	False
406067	-1.36290	-1.25681	-0.63759	False
406090	0.61908	0.67774	-0.61208	False
408317	1.08301	1.41476	0.65744	False
408319	0.16996	0.38707	0.03884	False
408332	1.51165	1.66885	-0.06751	False
411844	-0.99136	-0.93671	-0.82199	False
412060	-0.65002	-0.93098	0.38840	False
412115	0.46053	0.58491	-0.33879	False
412144	0.48285	0.30438	-0.20240	False
412302	-0.59452	-0.85211	0.27787	False
412320	-0.13925	-0.05385	-0.58364	False
412431	0.87039	1.27211	0.94318	False
412455	0.96874	1.10097	-0.24328	False
413996	3.76982	2.56946	3.94902	True
414004	0.16630	0.11060	-0.71050	False
414013	0.21083	0.31238	-0.47008	False
414022	0.52092	0.46434	-0.74888	False
414079	0.39945	0.30477	-0.56499	False
414094	1.54101	1.43361	-0.64459	False
415259	0.43331	-0.14772	1.59334	False
415351	1.15582	1.26435	-0.32634	False
417061	0.83135	1.00873	-0.05892	False

Table 2.6.11
b/b Analysis
Mathematics Grade 7

Item Id	Old b	New b	Std Dist	Flag
123969A	1.04278	1.05466	-0.88978	False
123993A	1.03193	0.74362	0.85146	False
124136A	0.74635	0.70115	-0.81088	False
124343A	0.89783	0.91053	-0.95052	False
124351A	-0.04403	0.00118	0.04596	False
124358A	0.29537	0.26248	-0.70024	False
124505A	1.55261	1.62891	-0.82866	False
124508A	-0.42730	-0.82362	0.23118	False
124510A	0.20340	0.84017	3.28363	True
124647A	-0.04610	0.14852	0.91901	False
124715A	-0.72500	-0.61908	0.98339	False
400323	2.07824	2.22079	-0.76468	False
400873	1.04669	1.13426	-0.64145	False
400958	0.38935	0.32516	-0.96328	False
400979	1.12713	1.01313	-0.08345	False
400983	-0.56902	-0.96849	0.12813	False
400990	1.43696	0.87244	2.80916	False
406163	0.89587	0.76349	-0.17440	False
408567	1.55776	1.75038	-0.46670	False
408597	0.10705	0.21486	0.28158	False
408632	1.79437	1.69038	0.42981	False
408640	1.82038	1.73138	0.36468	False
408731	-1.26224	-1.63604	-0.61545	False
408734	-0.30401	-0.55147	-0.53127	False
408770	-0.08111	-0.12026	-0.41421	False
408783	1.57655	1.53050	-0.09468	False
408790	1.69060	2.15607	1.01060	False
410223	0.37185	0.31288	-0.91784	False
410239	-0.58458	-0.90958	-0.31947	False
412082	0.50627	0.75127	0.73958	False
412118	0.30160	0.26408	-0.73258	False
412147	0.89317	0.81195	-0.47504	False
412513	-0.43167	-0.66833	-0.70361	False

Table 2.6.12
b/b Analysis
Mathematics Grade 8

Item Id	Old b	New b	Std Dist	Flag
126030A	1.42872	1.52450	-0.74904	False
126395A	0.06950	-0.93235	0.87289	False
126885A	-0.43615	-1.36162	0.21739	False
127148A	1.69126	1.85537	-0.77515	False
127737A	-0.56460	-1.04069	-0.70527	False
400177	1.46785	1.55868	-0.79697	False
400191	2.48120	2.98857	-0.45311	False
400345	1.87103	1.35655	0.99823	False
400730	1.30288	1.38649	-0.67663	False
400803	-0.95423	-0.96974	0.96883	False
400985	1.70442	2.16238	0.06866	False
401024	2.42354	2.98477	-0.24697	False
401027	1.66547	2.03833	-0.14560	False
401030	1.76047	2.25606	0.13014	False
401033	1.73007	1.67658	-0.46400	False
408518	1.82127	0.20606	4.15866	True
408651	2.02918	2.36976	-0.55116	False
408795	1.91150	1.17242	1.68648	False
409239	-0.38896	-1.01915	-0.60143	False
412449	-0.03244	-0.11447	-0.01453	False
412646	1.29649	1.31717	-0.85428	False
412662	0.90825	0.74722	-0.85521	False
412703	-0.10024	-0.06271	0.39148	False
412756	-0.08780	-0.42863	-0.72019	False
412946	1.30584	1.16260	-0.56632	False
413229	-1.44727	-1.63151	0.90028	False
413290	-0.42798	-0.71211	-0.26373	False
413314	-0.11016	-0.05990	0.43702	False
413335	-0.62626	-1.07421	-0.57055	False
414370	1.58630	1.38298	-0.15119	False
414805	0.29433	0.26634	-0.13725	False
414880	1.24364	1.07011	-0.53147	False

Section 2.7

Final Item Parameters

Table 2.7.1
IRT Parameters for Dichotomous Items
English Language Arts Grade 3

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
410639	1.13024	0.04275	0.01919	0.03254	0.28341	0.01391
410703	1.98246	0.06404	-1.24980	0.02428	0.13703	0.02060
406898	0.90549	0.02486	-1.09487	0.04234	0.06475	0.02251
406771	0.81543	0.03632	0.09730	0.04977	0.23919	0.01876
410708	0.67019	0.03602	0.40069	0.06015	0.21646	0.02051
406787	0.55933	0.02941	-0.09956	0.09441	0.15103	0.03151
418646	1.19682	0.04169	-0.35356	0.03432	0.26078	0.01663
418622	0.61520	0.02281	0.20608	0.04376	0.05126	0.01600
418659	1.55069	0.06591	0.88994	0.01905	0.26574	0.00689
418639	1.13133	0.04179	0.52265	0.02325	0.18873	0.00962
418629	0.33254	0.01165	-0.19421	0.03275	0.00000	0.00000
418618	1.56953	0.04668	-0.83452	0.02604	0.16240	0.01738
418643	0.73719	0.02442	-0.80807	0.05992	0.08887	0.02717
418652	0.86139	0.04102	0.33046	0.04460	0.29177	0.01584
401179	0.86213	0.03382	-0.07116	0.04472	0.19109	0.01859
401182	1.10448	0.03623	-0.58514	0.03839	0.18460	0.02004
401685	1.36138	0.04675	0.49469	0.01896	0.19276	0.00825
129875A	1.54988	0.04999	0.36930	0.01693	0.19490	0.00796
401701	0.78405	0.02780	-0.96133	0.06936	0.12903	0.03314
410374	0.87182	0.03513	0.43078	0.03281	0.16016	0.01315
410387	0.62404	0.02151	-0.82420	0.07059	0.08014	0.02853
410415	1.19182	0.03292	-0.52958	0.02671	0.09196	0.01473
410420	0.85071	0.03204	-0.17857	0.04566	0.16334	0.01959
410432	1.04966	0.02700	-0.76295	0.02939	0.05326	0.01565
402448	1.26118	0.03909	-0.25380	0.02625	0.17907	0.01359
402511	1.08338	0.04468	0.71043	0.02489	0.21288	0.00948
402513	1.30691	0.04471	-0.70728	0.03690	0.26516	0.02024
402452	1.04541	0.04932	0.85769	0.02792	0.26054	0.00967
545188	0.88747	0.04604	1.10764	0.03116	0.20128	0.00991
421676	0.40547	0.01226	-0.59435	0.03092	0.00000	0.00000
421672	0.77008	0.03175	-0.21335	0.05720	0.17650	0.02307
421683	0.69064	0.03263	0.23036	0.05563	0.16777	0.02044
421681	0.70466	0.03970	0.82812	0.04531	0.21087	0.01547
421674	1.07627	0.04371	0.70486	0.02458	0.20118	0.00943
421611	1.16913	0.04633	0.57223	0.02429	0.24028	0.00965
421614	1.23118	0.04387	0.43599	0.02200	0.20497	0.00945
421623	0.83705	0.03597	0.15078	0.04481	0.22089	0.01735
421651	0.45747	0.01263	-0.50474	0.02670	0.00000	0.00000
421656	0.64612	0.02998	0.42787	0.04941	0.10803	0.01829

Table 2.7.2
IRT Parameters for Polytomous Items
English Language Arts Grade 3

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
129850A	0.67778	0.01094	0.48911	0.01665	0.32372	0.01704	-0.32372	0.01802	0.00000	0.00000	n/a	n/a	n/a	n/a
129871A	0.93754	0.01272	1.52128	0.01357	1.18171	0.01340	-1.18171	0.03232	0.00000	0.00000	n/a	n/a	n/a	n/a
406766	0.72721	0.01031	1.85463	0.01787	1.27503	0.01664	-1.27503	0.03927	0.00000	0.00000	n/a	n/a	n/a	n/a
410396	0.53577	0.00754	1.20650	0.02151	0.87169	0.02095	-0.87169	0.02756	0.00000	0.00000	n/a	n/a	n/a	n/a
410723	0.51361	0.00830	-0.14036	0.01997	0.47158	0.02208	-0.47158	0.02171	0.00000	0.00000	n/a	n/a	n/a	n/a
410735	0.80731	0.00940	2.22929	0.01415	2.56915	0.01508	-0.44136	0.03132	-2.12780	0.08723	0.00000	0.00000	n/a	n/a
418677	0.63990	0.00742	0.57251	0.01615	1.13641	0.01836	-1.13641	0.02273	0.00000	0.00000	n/a	n/a	n/a	n/a
418699	0.87457	0.01118	2.49503	0.01397	2.26220	0.01402	-0.17171	0.03136	-2.09048	0.11347	0.00000	0.00000	n/a	n/a
421661	0.78201	0.01091	-0.06897	0.01354	0.43833	0.01554	-0.43833	0.01529	0.00000	0.00000	n/a	n/a	n/a	n/a
421895	0.55615	0.00645	1.16287	0.01906	1.58866	0.02045	-1.58866	0.03341	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.3
IRT Parameters for Dichotomous Items
English Language Arts Grade 4

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
130710A	0.65294	0.02118	-1.40556	0.07769	0.08914	0.03491
130712A	0.27702	0.01195	-1.67549	0.07878	0.00000	0.00000
130675A	0.39995	0.01209	-0.24951	0.02791	0.00000	0.00000
130706A	0.41391	0.01235	-0.60454	0.03094	0.00000	0.00000
130709A	0.88670	0.03041	-0.56025	0.05035	0.14724	0.02445
130704A	1.19612	0.03910	0.05049	0.02606	0.19805	0.01259
412876	1.14025	0.03329	-0.92542	0.03733	0.10997	0.02292
128683A	0.70881	0.04121	0.89616	0.04804	0.24586	0.01577
128687A	0.91316	0.03238	-0.09945	0.03962	0.16380	0.01784
410911	0.55162	0.02315	-0.28260	0.08093	0.09197	0.02869
128690A	1.01915	0.06138	1.50927	0.03384	0.25032	0.00780
128689A	0.53589	0.02948	0.70271	0.06403	0.10362	0.02155
128686A	1.17498	0.07923	1.57585	0.03503	0.32972	0.00707
412895	0.87465	0.04741	1.26231	0.03286	0.21065	0.00981
401765	0.93266	0.03293	0.01680	0.03606	0.16198	0.01611
401736	1.09200	0.04009	0.45678	0.02578	0.20055	0.01090
401771	1.19201	0.04134	-0.88579	0.04608	0.24640	0.02645
401759	1.36094	0.04668	0.21718	0.02285	0.25377	0.01068
401190	0.83034	0.04018	0.75408	0.03726	0.22724	0.01334
420698	0.49880	0.02739	0.68465	0.06934	0.08778	0.02253
420714	0.59814	0.02570	-0.14163	0.07310	0.10631	0.02690
422664	0.71484	0.03222	-0.50841	0.08524	0.23068	0.03293
420785	0.60510	0.01675	-1.72581	0.04232	0.00000	0.00000
420820	0.61459	0.04163	0.84036	0.06796	0.27905	0.02035
402538	0.92244	0.03237	-0.42076	0.04677	0.17519	0.02220
402587	0.99750	0.03546	-0.37697	0.04364	0.21829	0.02071
402540	0.79595	0.03325	0.58970	0.03500	0.13762	0.01369
402583	0.73952	0.03956	1.05551	0.03815	0.18036	0.01298
402594	0.88953	0.03901	0.93331	0.02842	0.15652	0.01026
411251	1.32615	0.04219	-0.00291	0.02372	0.21132	0.01200
411256	0.59690	0.03261	0.60428	0.06204	0.15276	0.02125
411261	0.97516	0.03983	0.36591	0.03425	0.24888	0.01361
411268	0.55308	0.02888	-0.24624	0.10802	0.16825	0.03590
411283	0.72153	0.02738	0.05750	0.04695	0.09943	0.01911
420633	1.12496	0.03407	-0.09981	0.02662	0.13438	0.01343
420656	0.95271	0.04140	0.37869	0.03758	0.28410	0.01420
420639	0.36700	0.01923	-0.61392	0.16379	0.10715	0.04214
420642	0.86150	0.02555	-1.11421	0.05184	0.08425	0.02771
420671	1.09544	0.03127	-0.77897	0.03507	0.09731	0.02042

Table 2.7.4
IRT Parameters for Polytomous Items
English Language Arts Grade 4

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
128692A	0.28856	0.00733	1.89806	0.05455	0.37447	0.03846	-0.37447	0.04120	0.00000	0.00000	n/a	n/a	n/a	n/a
128768A	0.86802	0.00942	1.59609	0.01253	1.73576	0.01383	-0.17087	0.01933	-1.56490	0.04009	0.00000	0.00000	n/a	n/a
129528A	0.98034	0.01299	1.33766	0.01304	0.87411	0.01284	-0.87411	0.02304	0.00000	0.00000	n/a	n/a	n/a	n/a
130668A	0.88982	0.01513	-0.12505	0.01319	0.10354	0.01367	-0.10354	0.01354	0.00000	0.00000	n/a	n/a	n/a	n/a
130728A	0.89110	0.01327	1.52703	0.01658	0.63758	0.01466	-0.63758	0.02290	0.00000	0.00000	n/a	n/a	n/a	n/a
401750	0.92883	0.01482	0.16996	0.01240	0.15648	0.01307	-0.15648	0.01317	0.00000	0.00000	n/a	n/a	n/a	n/a
410868	0.84113	0.00852	1.48802	0.01324	2.42505	0.01586	-0.46938	0.02126	-1.95567	0.04725	0.00000	0.00000	n/a	n/a
411246	0.34663	0.00603	1.26355	0.03292	0.72227	0.03079	-0.72227	0.03475	0.00000	0.00000	n/a	n/a	n/a	n/a
420675	0.34314	0.00662	2.06311	0.04261	0.68956	0.03277	-0.68956	0.03926	0.00000	0.00000	n/a	n/a	n/a	n/a
420723	0.49376	0.00720	0.07679	0.02002	0.65217	0.02254	-0.65217	0.02265	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.5
IRT Parameters for Dichotomous Items
English Language Arts Grade 5

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
129011A	0.29133	0.01133	-1.24792	0.06028	0.00000	0.00000
129009A	0.76893	0.04787	1.47025	0.03903	0.21742	0.01070
129003A	0.57008	0.02003	-0.18557	0.05799	0.05912	0.02048
416506	0.73942	0.02226	-0.62535	0.04892	0.06766	0.02128
416518	1.16237	0.03813	0.17061	0.02598	0.19910	0.01169
129012A	0.94816	0.03789	0.33909	0.03581	0.24816	0.01381
129193A	0.30122	0.03548	1.82621	0.16108	0.14047	0.03789
129174A	0.99455	0.03355	0.10920	0.03148	0.16962	0.01371
129198A	0.65166	0.03349	0.58530	0.05545	0.18686	0.01883
129178A	0.56144	0.02596	0.22232	0.06892	0.10130	0.02344
504241	1.04692	0.06363	1.40599	0.03252	0.31986	0.00835
129201A	0.62486	0.02490	-0.82075	0.09382	0.13458	0.03681
129760A	0.47469	0.03475	0.91029	0.09122	0.17628	0.02657
129179A	0.83227	0.03802	0.41972	0.04463	0.27138	0.01568
401400	0.65597	0.02126	-1.05204	0.07183	0.08610	0.03063
401440	0.62577	0.02270	-0.81300	0.08069	0.10252	0.03223
401398	1.11039	0.03442	-0.35618	0.03299	0.16970	0.01647
401443	0.40862	0.01242	-1.25448	0.04432	0.00000	0.00000
401394	1.19876	0.03944	0.20147	0.02504	0.20755	0.01127
402279	0.53645	0.01981	-0.33331	0.07050	0.06808	0.02420
402196	0.90792	0.03147	-1.41477	0.07419	0.16209	0.04157
402284	0.37763	0.01177	-0.83808	0.03842	0.00000	0.00000
402211	1.23601	0.03742	-0.17433	0.02649	0.17880	0.01329
402286	0.58579	0.02827	0.17444	0.07310	0.13692	0.02485
419416	1.31002	0.05952	1.47644	0.02212	0.14249	0.00535
419423	0.39204	0.02242	-0.17725	0.15149	0.11517	0.03976
419419	1.18078	0.04827	1.16192	0.02103	0.16008	0.00678
419405	0.75579	0.02520	-1.09684	0.07115	0.11424	0.03379
419421	0.67797	0.02597	-1.06140	0.09403	0.14856	0.04027
419298	0.79388	0.03108	0.02065	0.04844	0.17783	0.01910
419302	0.20963	0.01051	-0.26927	0.05289	0.00000	0.00000
419309	0.90717	0.04049	0.83646	0.03102	0.21767	0.01112
419311	0.96905	0.03620	0.20554	0.03496	0.22409	0.01421
419321	0.72447	0.02512	-1.05508	0.07672	0.12102	0.03503
410428	1.21444	0.04329	0.13921	0.02866	0.28288	0.01234
410440	0.79231	0.02499	-1.11373	0.06299	0.10096	0.03106
410563	1.05875	0.04390	0.86554	0.02532	0.21724	0.00927
410584	0.87466	0.03225	0.26783	0.03542	0.16065	0.01437
410588	0.82934	0.03587	0.75705	0.03305	0.17283	0.01220

Table 2.7.6
IRT Parameters for Polytomous Items
English Language Arts Grade 5

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
129015A	0.56254	0.00728	-0.69837	0.01869	0.92674	0.02442	-0.92674	0.01994	0.00000	0.00000	n/a	n/a	n/a	n/a
129019A	0.63790	0.00686	0.37582	0.01635	1.43993	0.02012	-1.43993	0.02263	0.00000	0.00000	n/a	n/a	n/a	n/a
129195A	0.62936	0.00867	0.52959	0.01659	0.61444	0.01818	-0.61444	0.01965	0.00000	0.00000	n/a	n/a	n/a	n/a
129196A	0.94663	0.01111	1.83637	0.01260	1.52242	0.01319	-0.10137	0.01948	-1.42103	0.04249	0.00000	0.00000	n/a	n/a
402288	0.29190	0.00553	0.34065	0.03426	0.65140	0.03644	-0.65140	0.03704	0.00000	0.00000	n/a	n/a	n/a	n/a
402908	0.59937	0.00988	1.11669	0.02089	0.42424	0.01936	-0.42424	0.02198	0.00000	0.00000	n/a	n/a	n/a	n/a
410413	0.71298	0.01038	0.09823	0.01483	0.40553	0.01664	-0.40553	0.01653	0.00000	0.00000	n/a	n/a	n/a	n/a
416527	0.76493	0.00770	1.01350	0.01315	1.57096	0.01618	0.11264	0.01624	-1.68361	0.02950	0.00000	0.00000	n/a	n/a
419292	0.99227	0.01600	-0.35736	0.01295	0.13137	0.01339	-0.13137	0.01296	0.00000	0.00000	n/a	n/a	n/a	n/a
422629	0.99765	0.01366	1.14675	0.01288	0.56512	0.01290	-0.56512	0.01729	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.7
IRT Parameters for Dichotomous Items
English Language Arts Grade 6

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
401882	0.35118	0.02323	-0.39790	0.21524	0.14526	0.05065
401876	0.52304	0.01970	-0.65065	0.08357	0.07856	0.02893
401890	1.05296	0.03739	-1.40550	0.06587	0.19588	0.03951
401202	0.70961	0.02081	-0.54766	0.04407	0.05312	0.01835
401231	0.78090	0.03291	0.35102	0.04212	0.17798	0.01611
401886	0.48289	0.01350	-1.33792	0.03944	0.00000	0.00000
129251A	0.77312	0.02522	-0.00276	0.03648	0.06975	0.01523
129252A	0.50944	0.01302	-0.72022	0.02706	0.00000	0.00000
129254A	1.14940	0.03495	-1.44774	0.04652	0.10690	0.03055
129255A	0.79417	0.02641	-1.06823	0.06577	0.11503	0.03212
129379A	0.51561	0.02207	0.13873	0.06702	0.06889	0.02211
129257A	1.31538	0.04195	-1.37523	0.04264	0.13990	0.02968
129259A	0.55544	0.02639	0.61664	0.05340	0.07821	0.01836
420260	0.23668	0.01156	1.92369	0.09756	0.00000	0.00000
420235	0.86570	0.03300	-0.07610	0.04467	0.20275	0.01848
132118A	0.88026	0.03405	0.35451	0.03430	0.17764	0.01380
132117A	0.66194	0.02456	-0.86234	0.08018	0.11618	0.03341
132119A	0.95277	0.03901	0.25771	0.03739	0.27134	0.01446
132116A	0.62223	0.02060	-0.45515	0.05583	0.06241	0.02146
402013	0.32613	0.01144	-0.64747	0.03935	0.00000	0.00000
401980	0.59336	0.02823	-0.84385	0.12259	0.19482	0.04398
402019	0.26889	0.03331	1.48761	0.24738	0.16447	0.04826
401982	1.10698	0.03765	-0.94077	0.04850	0.21515	0.02659
401986	0.43507	0.01816	-1.37729	0.14019	0.10826	0.04365
409541	1.00955	0.03872	0.64522	0.02589	0.18201	0.01022
409546	1.08130	0.04078	0.11773	0.03305	0.28029	0.01377
409551	0.80055	0.02954	-0.00953	0.04322	0.13758	0.01793
409556	1.38751	0.05090	0.16675	0.02531	0.33093	0.01111
409568	0.33824	0.02318	-0.33164	0.22477	0.14499	0.05108
419745	1.41857	0.05654	-1.67403	0.05974	0.25259	0.04385
419741	0.18799	0.01052	-0.24629	0.05737	0.00000	0.00000
419743	0.30528	0.02012	0.09951	0.18746	0.10323	0.04019
419747	0.69976	0.02675	-0.34742	0.06144	0.12149	0.02481
419754	1.07977	0.04450	0.55118	0.02878	0.27784	0.01100
409362	0.63925	0.03197	-0.67141	0.11392	0.26027	0.03929
409385	1.06738	0.03973	0.81427	0.02214	0.14794	0.00840
409396	0.93120	0.03708	0.26252	0.03646	0.23766	0.01444
409447	0.87606	0.04176	1.12666	0.02964	0.17354	0.00964
409472	0.82855	0.03721	0.32473	0.04495	0.26063	0.01631

Table 2.7.8
IRT Parameters for Polytomous Items
English Language Arts Grade 6

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
129258A	0.40353	0.00511	0.54655	0.02425	1.20045	0.02717	-1.20045	0.03009	0.00000	0.00000	n/a	n/a	n/a	n/a
131520A	1.04142	0.01205	0.53903	0.01054	0.88215	0.01243	-0.88215	0.01548	0.00000	0.00000	n/a	n/a	n/a	n/a
132122A	0.99016	0.00954	1.44404	0.01032	2.02266	0.01326	0.60598	0.01333	-0.71867	0.02207	-1.90995	0.04806	0.00000	0.00000
401205	0.88859	0.01336	-0.90185	0.01496	0.35868	0.01670	-0.35868	0.01422	0.00000	0.00000	n/a	n/a	n/a	n/a
401568	1.02065	0.00972	1.66480	0.00997	2.73069	0.01462	1.09085	0.01253	-0.46554	0.02165	-3.35601	0.19273	0.00000	0.00000
402027	0.83442	0.01159	0.00215	0.01278	0.39215	0.01460	-0.39215	0.01437	0.00000	0.00000	n/a	n/a	n/a	n/a
409458	0.55226	0.00827	0.17689	0.01834	0.52198	0.02029	-0.52198	0.02061	0.00000	0.00000	n/a	n/a	n/a	n/a
419750	0.32247	0.00372	1.66461	0.03121	2.27228	0.03325	-2.27228	0.05020	0.00000	0.00000	n/a	n/a	n/a	n/a
420218	0.85979	0.01426	-1.00422	0.01700	0.24507	0.01700	-0.24507	0.01512	0.00000	0.00000	n/a	n/a	n/a	n/a
420298	0.86911	0.01035	0.68783	0.01242	0.84256	0.01393	-0.84256	0.01768	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.9
IRT Parameters for Dichotomous Items
English Language Arts Grade 7

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
407724	0.57875	0.02839	-0.14903	0.09679	0.15960	0.03355
407738	0.56662	0.03116	0.55093	0.07408	0.15410	0.02453
407765	0.52677	0.02694	-0.54667	0.13531	0.16992	0.04496
407754	0.66409	0.02194	-1.09129	0.07571	0.09157	0.03389
407760	0.43344	0.01283	-0.90998	0.03671	0.00000	0.00000
416739	0.68503	0.03464	0.26806	0.06882	0.24385	0.02352
416766	0.54104	0.01955	-0.86241	0.08844	0.08496	0.03278
128731A	0.87326	0.03191	0.11626	0.03995	0.15940	0.01733
129219A	0.98747	0.05116	1.37521	0.03002	0.23087	0.00861
128756A	0.77617	0.02478	-0.77409	0.05768	0.09072	0.02780
416762	0.86226	0.04011	0.88243	0.03475	0.22372	0.01244
128757A	1.12034	0.03250	-0.11289	0.02649	0.10991	0.01378
128753A	0.95837	0.02834	-0.74158	0.04270	0.09089	0.02334
128730A	1.02588	0.03164	-0.83667	0.04519	0.11927	0.02610
401802	0.25069	0.01107	0.52714	0.04454	0.00000	0.00000
401808	0.81036	0.03316	0.21236	0.04684	0.19390	0.01872
401814	0.43942	0.01305	-1.04467	0.03910	0.00000	0.00000
401816	1.20588	0.04523	0.39833	0.02730	0.28266	0.01161
401320	0.65234	0.02362	-0.82916	0.08130	0.10718	0.03474
409401	0.50567	0.02546	0.14033	0.09359	0.10921	0.03022
409409	0.58643	0.02005	0.32195	0.04214	0.04184	0.01483
409464	0.74369	0.03650	1.02092	0.03775	0.16566	0.01334
409493	0.70934	0.03555	0.44642	0.05886	0.23929	0.02034
409501	0.65324	0.02630	-0.13508	0.06644	0.11255	0.02602
402696	0.59138	0.01431	-0.74997	0.02547	0.00000	0.00000
402702	0.81567	0.04231	0.89087	0.04138	0.27459	0.01383
402708	0.91422	0.03513	0.32298	0.03651	0.19841	0.01517
402755	0.79257	0.03596	0.69960	0.03989	0.19629	0.01479
402637	0.85172	0.03027	-0.15617	0.04609	0.14499	0.02078
409622	0.56758	0.02390	-0.94304	0.11759	0.13741	0.04486
409628	0.50390	0.01394	-1.13773	0.03654	0.00000	0.00000
409639	1.12824	0.03907	-0.62694	0.04490	0.23585	0.02420
409660	1.61090	0.05467	-1.27286	0.03694	0.16433	0.02975
409672	0.70398	0.05240	1.66571	0.05026	0.27537	0.01240
402757	0.85722	0.03681	0.18958	0.04870	0.26473	0.01868
402759	0.62042	0.03313	1.49028	0.03939	0.07774	0.01185
402784	0.76902	0.02552	-0.65258	0.05851	0.09864	0.02749
402763	0.85171	0.03322	0.18675	0.04285	0.18761	0.01774
402765	1.58821	0.05938	0.96559	0.01710	0.21352	0.00654

Table 2.7.10
IRT Parameters for Polytomous Items
English Language Arts Grade 7

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
129214A	1.05360	0.01323	1.18577	0.01138	0.90294	0.01196	-0.90294	0.01999	0.00000	0.00000	n/a	n/a	n/a	n/a
401318	0.80342	0.01280	-0.41989	0.01485	0.24914	0.01576	-0.24914	0.01480	0.00000	0.00000	n/a	n/a	n/a	n/a
402767	0.82782	0.01062	0.32353	0.01254	0.55614	0.01449	-0.55614	0.01510	0.00000	0.00000	n/a	n/a	n/a	n/a
407741	0.48295	0.00766	-1.21381	0.02568	0.68923	0.02855	-0.68923	0.02314	0.00000	0.00000	n/a	n/a	n/a	n/a
407798	0.82105	0.01063	1.59713	0.01452	1.21138	0.01454	-1.21138	0.03037	0.00000	0.00000	n/a	n/a	n/a	n/a
407845	1.07990	0.01064	1.52190	0.00964	1.86509	0.01210	0.47202	0.01294	-0.70892	0.02124	-1.62818	0.03942	0.00000	0.00000
409517	0.50799	0.00922	0.33548	0.02052	0.30666	0.02157	-0.30666	0.02188	0.00000	0.00000	n/a	n/a	n/a	n/a
409613	0.49275	0.00848	1.27986	0.02517	0.48614	0.02268	-0.48614	0.02580	0.00000	0.00000	n/a	n/a	n/a	n/a
416774	0.82758	0.01286	0.17347	0.01330	0.23280	0.01436	-0.23280	0.01438	0.00000	0.00000	n/a	n/a	n/a	n/a
416793	0.99642	0.00924	1.35573	0.01013	2.22160	0.01427	0.54582	0.01299	-0.78239	0.02064	-1.98504	0.04395	0.00000	0.00000

Table 2.7.11
IRT Parameters for Dichotomous Items
English Language Arts Grade 8

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
131191A	0.56254	0.02578	0.12795	0.07156	0.10342	0.02452
131175A	0.56363	0.02224	-0.97088	0.10299	0.11453	0.03853
131192A	0.64941	0.01515	-1.05888	0.02680	0.00000	0.00000
131193A	0.70836	0.03059	0.04403	0.05871	0.17563	0.02189
131195A	0.55487	0.02205	-1.05011	0.10850	0.11762	0.04039
131194A	0.91677	0.05551	1.45049	0.03581	0.26965	0.00916
420925	0.70739	0.02971	0.33658	0.04658	0.13212	0.01759
420929	0.53568	0.04260	1.21721	0.07382	0.26103	0.02089
420946	0.81381	0.03233	-0.12790	0.05244	0.20619	0.02097
420872	0.53417	0.01338	-0.79209	0.02759	0.00000	0.00000
420952	0.53626	0.02108	-0.84526	0.09895	0.10062	0.03532
420905	0.40545	0.01227	0.80755	0.03276	0.00000	0.00000
420970	0.65039	0.01457	-0.71060	0.02237	0.00000	0.00000
420913	0.95202	0.03831	0.82362	0.02655	0.16462	0.00996
401373	0.82596	0.03658	0.52674	0.03971	0.22090	0.01460
401746	1.53673	0.05097	-0.18842	0.02449	0.29065	0.01271
401754	0.95686	0.02896	-0.77069	0.04324	0.10599	0.02246
401748	1.10430	0.03623	0.46191	0.02237	0.13908	0.00964
401742	1.53859	0.04890	-0.45134	0.02579	0.25171	0.01471
402246	0.79651	0.02932	-1.24414	0.08411	0.16672	0.04128
402250	0.88982	0.04681	1.16182	0.03298	0.24470	0.01030
402164	0.93633	0.03760	-0.26418	0.05152	0.29862	0.02067
402160	0.82001	0.02755	-0.58839	0.05269	0.11953	0.02420
402254	0.88653	0.03446	0.38519	0.03461	0.18237	0.01380
402125	0.41757	0.01355	-1.81495	0.05925	0.00000	0.00000
402129	0.78017	0.03147	-0.63896	0.07354	0.21657	0.03056
402209	0.85855	0.03400	-0.10293	0.04941	0.23091	0.01981
402213	0.63923	0.03024	0.13420	0.06788	0.17023	0.02377
402133	0.94377	0.03681	0.53237	0.03034	0.19065	0.01201
402075	0.33657	0.01835	-0.29448	0.15946	0.09432	0.03756
402111	0.54337	0.01601	-1.96494	0.05246	0.00000	0.00000
402077	0.93274	0.04619	1.34184	0.02921	0.17382	0.00835
402118	0.91768	0.03230	-0.10808	0.03981	0.17484	0.01741
402116	0.77028	0.01716	-1.16222	0.02467	0.00000	0.00000
409754	1.06891	0.03327	0.16936	0.02514	0.12787	0.01147
409773	1.04172	0.03541	0.55089	0.02323	0.13224	0.00966
409826	0.35185	0.03678	1.00353	0.18826	0.21114	0.04221
409789	0.82096	0.03346	0.70873	0.03155	0.13589	0.01201
409803	0.75368	0.04263	0.90714	0.04553	0.28140	0.01443

Table 2.7.12
IRT Parameters for Polytomous Items
English Language Arts Grade 8

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
130644A	1.12411	0.01298	0.39557	0.01004	0.97615	0.01256	-0.97615	0.01455	0.00000	0.00000	n/a	n/a	n/a	n/a
131197A	1.07338	0.01025	1.13437	0.00953	1.77157	0.01299	0.49007	0.01223	-0.65801	0.01749	-1.60361	0.03080	0.00000	0.00000
131198A	0.88636	0.01032	0.98279	0.01322	1.50251	0.01464	-1.50251	0.02660	0.00000	0.00000	n/a	n/a	n/a	n/a
401369	0.78078	0.01286	-0.82451	0.01728	0.27107	0.01771	-0.27107	0.01599	0.00000	0.00000	n/a	n/a	n/a	n/a
402079	0.64830	0.00921	0.02281	0.01597	0.52047	0.01828	-0.52047	0.01798	0.00000	0.00000	n/a	n/a	n/a	n/a
402174	0.53865	0.00878	0.45639	0.01968	0.43064	0.02079	-0.43064	0.02164	0.00000	0.00000	n/a	n/a	n/a	n/a
409832	0.31630	0.00651	2.88449	0.05583	0.82397	0.03789	-0.82397	0.04855	0.00000	0.00000	n/a	n/a	n/a	n/a
418826	0.62363	0.01164	-0.07670	0.01787	0.16079	0.01858	-0.16079	0.01839	0.00000	0.00000	n/a	n/a	n/a	n/a
420986	0.59447	0.01055	-0.17043	0.01846	0.24596	0.01953	-0.24596	0.01913	0.00000	0.00000	n/a	n/a	n/a	n/a
420990	1.13739	0.01078	1.07000	0.00904	1.89288	0.01311	0.52551	0.01163	-0.77800	0.01762	-1.64040	0.03041	0.00000	0.00000

Table 2.7.13
IRT Parameters for Dichotomous Items
Mathematics Grade 3

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
411623	1.08393	0.03189	-1.13526	0.04003	0.10982	0.02287
400021	0.90822	0.03886	0.33728	0.03800	0.27195	0.01377
411097	0.61621	0.03035	-0.42492	0.09621	0.23182	0.03179
405588	0.69201	0.03277	0.40665	0.05051	0.19342	0.01747
413222	0.99119	0.04208	0.41418	0.03371	0.29035	0.01223
411145	1.02232	0.04017	-0.54421	0.05022	0.34275	0.02062
400432	0.72289	0.04208	1.61173	0.04125	0.12350	0.00903
400434	0.65058	0.03074	-0.19381	0.07680	0.21939	0.02610
527940	0.97584	0.03637	0.55867	0.02631	0.16362	0.01018
411494	0.90857	0.03013	-1.20535	0.05897	0.14674	0.03059
417030	0.84534	0.03075	0.14601	0.03576	0.14761	0.01443
400044	0.78769	0.03087	-0.38670	0.05733	0.20636	0.02278
123976A	0.67789	0.03552	0.77646	0.04601	0.19403	0.01528
125052A	1.07805	0.05055	1.22978	0.02580	0.18561	0.00718
126321A	0.61355	0.04116	1.15668	0.05387	0.23579	0.01584
124395A	0.91063	0.03253	-0.56353	0.04918	0.21187	0.02178
411633	0.80002	0.03153	-1.07089	0.08033	0.22890	0.03503
124663A	1.13044	0.04398	0.87428	0.02196	0.16922	0.00767
400358	0.76724	0.03901	1.08691	0.03488	0.17285	0.01104
411729	0.83256	0.04242	0.95423	0.03519	0.23543	0.01128
407640	0.66502	0.06155	1.84011	0.06740	0.32172	0.01187
407672	0.79282	0.06759	1.99557	0.06369	0.26326	0.00868
412628	0.31177	0.01102	-0.32054	0.03553	0.00000	0.00000
414589	0.88842	0.02953	0.45809	0.02517	0.08446	0.00988
409896	0.49545	0.02263	0.04952	0.07710	0.08250	0.02439
411231	0.96640	0.03580	0.81129	0.02332	0.11521	0.00829
126293A	0.74076	0.02839	-0.80747	0.07227	0.17353	0.03018
125235A	0.70720	0.04395	1.17762	0.04456	0.24935	0.01295
411093	0.80677	0.02641	-1.16886	0.06255	0.11669	0.03029
411254	0.93658	0.03205	0.02350	0.03277	0.16024	0.01396
124364A	0.79893	0.02761	-0.54340	0.05123	0.13366	0.02224
400614	0.79594	0.03312	0.18222	0.04424	0.20727	0.01648
125231A	0.85934	0.04946	1.11331	0.03728	0.29382	0.01068
551311B	0.64569	0.01395	-0.21311	0.01825	0.00000	0.00000
551328B	0.80110	0.02089	1.72053	0.03385	0.00000	0.00000

Table 2.7.14
IRT Parameters for Polytomous Items
Mathematics Grade 3

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
551257A	1.18507	0.01171	0.57662	0.00874	1.15368	0.01168	0.76681	0.01107	-0.25005	0.01217	-1.67044	0.02354	0.00000	0.00000
551257B	1.11858	0.01695	0.93379	0.01261	0.30738	0.01225	-0.30738	0.01438	0.00000	0.00000	n/a	n/a	n/a	n/a
551311A	0.59777	0.00805	2.00834	0.01890	2.02301	0.01912	-2.02301	0.05600	0.00000	0.00000	n/a	n/a	n/a	n/a
551320A	1.20042	0.01156	0.95026	0.00861	1.63291	0.01187	0.56367	0.01115	-0.62111	0.01579	-1.57548	0.02848	0.00000	0.00000
551320B	1.06962	0.01231	0.40471	0.01082	1.17901	0.01317	-1.17901	0.01701	0.00000	0.00000	n/a	n/a	n/a	n/a
551328A	0.94607	0.01501	0.78234	0.01408	0.24283	0.01362	-0.24283	0.01494	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.15
IRT Parameters for Dichotomous Items
Mathematics Grade 4

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
411858	0.66186	0.02249	-1.71147	0.08873	0.10146	0.04086
400815	0.78078	0.05227	1.52304	0.04390	0.24610	0.01107
127705A	1.48798	0.04784	0.53857	0.01631	0.16391	0.00777
400789	1.27147	0.03810	-0.02208	0.02238	0.15132	0.01208
400920	0.48268	0.02468	0.21011	0.08738	0.09153	0.02780
407852	1.14258	0.06677	1.75489	0.03483	0.17055	0.00592
411117	0.73210	0.03398	0.35274	0.05041	0.18981	0.01917
409954	0.78507	0.05128	1.77656	0.04612	0.16669	0.00912
124779A	0.90398	0.02986	0.09427	0.03105	0.09932	0.01438
411163	1.56895	0.04954	0.09601	0.01904	0.22701	0.01053
126060A	0.67351	0.03914	1.12255	0.04431	0.17904	0.01489
127584A	0.64484	0.04033	0.96420	0.05501	0.23249	0.01790
407867	0.65923	0.03771	0.48434	0.06664	0.25929	0.02187
411024	0.50167	0.03038	0.85946	0.06961	0.10709	0.02278
405630	1.11735	0.04380	0.63656	0.02477	0.21667	0.01034
124969A	0.86867	0.05134	1.28831	0.03704	0.26348	0.01069
400778	0.47391	0.01635	-2.24043	0.07210	0.00000	0.00000
413801	1.40304	0.04258	-0.04222	0.02130	0.18592	0.01188
400748	0.54774	0.03797	0.95913	0.07193	0.20506	0.02250
408261	0.79329	0.07034	2.28814	0.07698	0.20098	0.00805
408276	1.39543	0.07346	1.37765	0.02497	0.25702	0.00639
400839	0.80645	0.04873	1.31274	0.03929	0.24402	0.01146
400449	1.09965	0.03828	-0.03884	0.03172	0.21733	0.01536
400066	0.92414	0.04314	0.73344	0.03364	0.25273	0.01253
408032	1.44881	0.04309	-0.22575	0.02214	0.18490	0.01303
127117A	0.56693	0.03888	0.73413	0.08067	0.25331	0.02424
124741A	1.48010	0.04918	0.26885	0.01958	0.23354	0.01000
400447	1.07292	0.03640	-0.16536	0.03357	0.19563	0.01667
400466	1.04371	0.03723	0.52247	0.02427	0.14977	0.01071
400468	1.42807	0.06758	1.18708	0.02207	0.25460	0.00674
408040	1.24673	0.05471	0.98001	0.02298	0.24428	0.00815
127588A	1.24792	0.08721	1.93964	0.04104	0.21171	0.00552
551340B	1.71609	0.03631	-1.05890	0.01345	0.00000	0.00000
551336B	1.16925	0.02612	1.35822	0.01954	0.00000	0.00000

Table 2.7.16
IRT Parameters for Polytomous Items
Mathematics Grade 4

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
551336A	1.02531	0.01526	1.62863	0.01470	0.75986	0.01308	-0.75986	0.02536	0.00000	0.00000	n/a	n/a	n/a	n/a
551340A	1.11619	0.01428	-0.64140	0.01055	0.56832	0.01469	-0.56832	0.01121	0.00000	0.00000	n/a	n/a	n/a	n/a
551343A	0.69166	0.00793	2.01125	0.01621	1.66267	0.01639	0.63378	0.01906	-0.48418	0.02782	-1.81226	0.05259	0.00000	0.00000
551343B	1.07393	0.01708	1.66244	0.01586	0.59203	0.01339	-0.59203	0.02326	0.00000	0.00000	n/a	n/a	n/a	n/a
551361A	1.01517	0.01001	1.41062	0.01001	1.80887	0.01242	0.77766	0.01239	-0.83230	0.02316	-1.75423	0.04245	0.00000	0.00000
551361B	1.07445	0.01936	1.91310	0.01972	0.51216	0.01506	-0.51216	0.02587	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.17
IRT Parameters for Dichotomous Items
Mathematics Grade 5

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
411270	0.81324	0.03146	-0.06348	0.04739	0.18016	0.01938
415122	1.36195	0.06664	1.47795	0.02391	0.18126	0.00549
400718	1.22474	0.04033	0.39254	0.02135	0.17534	0.00947
400515	1.00286	0.03674	-1.25665	0.06715	0.22081	0.03714
400520	0.92561	0.02664	0.14232	0.02431	0.05600	0.01053
400523	0.86750	0.02948	0.24985	0.03075	0.10338	0.01301
408496	0.89927	0.05695	1.67344	0.03988	0.22078	0.00811
124038A	0.83482	0.03885	1.04402	0.03126	0.16466	0.01045
400300	0.28337	0.03071	4.66411	0.44863	0.20000	0.00000
415106	0.99913	0.03965	1.06899	0.02353	0.12136	0.00759
400662	1.04449	0.06967	1.95170	0.04357	0.18112	0.00598
415373	1.21152	0.09459	2.09726	0.04806	0.21931	0.00536
412026	1.32094	0.03669	-0.11873	0.02025	0.11984	0.01073
414837	0.65985	0.03816	0.93165	0.05045	0.21889	0.01623
411804	1.43634	0.05271	0.41022	0.02168	0.29102	0.00931
400302	1.30996	0.07275	1.53798	0.02759	0.23850	0.00603
408493	0.95497	0.03207	-0.35339	0.04010	0.16498	0.01896
125104A	0.84768	0.03176	0.69795	0.02761	0.10214	0.01055
411240	1.22545	0.03797	0.48194	0.01881	0.12345	0.00814
408471	0.60012	0.03379	0.95785	0.05121	0.14831	0.01707
400373	1.55876	0.10592	1.91528	0.03255	0.20327	0.00463
400385	0.66325	0.04402	1.11790	0.05358	0.28240	0.01560
400682	0.76760	0.03934	1.06267	0.03655	0.18836	0.01199
124675A	0.82149	0.03341	0.59026	0.03353	0.14995	0.01286
408514	1.27793	0.06075	1.28334	0.02378	0.22321	0.00657
400228	0.63995	0.03089	0.47976	0.05453	0.14959	0.01920
408477	0.44238	0.03636	1.62762	0.07330	0.12540	0.02124
125106A	1.39758	0.06176	1.15269	0.02108	0.22719	0.00646
414953	1.09377	0.03801	-0.19711	0.03462	0.23875	0.01610
128316A	0.96117	0.04697	1.10890	0.02985	0.23061	0.00933
415335	0.87407	0.06254	1.52855	0.04409	0.34446	0.00964
413850	0.73355	0.03835	0.86395	0.04291	0.21850	0.01436
411976	1.47529	0.06804	1.24910	0.02104	0.22884	0.00601
551422B	0.70752	0.01587	0.94722	0.02201	0.00000	0.00000
551230B	0.99252	0.01842	-0.20669	0.01299	0.00000	0.00000

Table 2.7.18
IRT Parameters for Polytomous Items
Mathematics Grade 5

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
551230A	0.92717	0.01446	-0.04893	0.01240	0.18638	0.01334	-0.18638	0.01322	0.00000	0.00000	n/a	n/a	n/a	n/a
551415A	1.26822	0.01263	0.73098	0.00828	1.20838	0.01093	0.78601	0.01039	-0.54950	0.01327	-1.44488	0.02143	0.00000	0.00000
551415B	1.61510	0.03811	1.79713	0.01842	0.13107	0.01451	-0.13107	0.01717	0.00000	0.00000	n/a	n/a	n/a	n/a
551422A	0.59775	0.00687	0.41906	0.01685	1.15266	0.01971	-1.15266	0.02249	0.00000	0.00000	n/a	n/a	n/a	n/a
551428A	0.92816	0.01001	1.31267	0.01173	1.28253	0.01311	0.37030	0.01434	-0.14969	0.01671	-1.50315	0.03264	0.00000	0.00000
551428B	1.04687	0.01664	1.69536	0.01632	0.61423	0.01401	-0.61423	0.02405	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.19
IRT Parameters for Dichotomous Items
Mathematics Grade 6

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
406067	1.01901	0.02932	-1.33768	0.04401	0.08942	0.02542
417061	0.99699	0.04574	0.94629	0.02725	0.21516	0.00897
415259	0.48336	0.02114	-0.21957	0.08391	0.07909	0.02651
414079	0.82941	0.03512	0.23660	0.04124	0.22273	0.01548
414094	1.15159	0.06108	1.37462	0.02803	0.21202	0.00662
400197	0.55558	0.03381	0.12659	0.09747	0.24765	0.02851
412060	0.46234	0.02467	-1.00920	0.17079	0.17147	0.05129
400411	0.29530	0.02107	0.86027	0.14404	0.08046	0.03103
412455	0.93047	0.04345	1.03928	0.02816	0.18202	0.00893
412144	0.66356	0.02707	0.23621	0.04551	0.09682	0.01703
400617	0.79676	0.06097	1.68053	0.05075	0.26799	0.00952
400628	0.39648	0.03741	0.77804	0.15222	0.23114	0.03647
127166A	0.53458	0.01386	-1.34519	0.03383	0.00000	0.00000
406039	0.90561	0.04487	1.04451	0.03045	0.21021	0.00956
412302	0.72183	0.02437	-0.92969	0.06376	0.10202	0.02809
127167A	1.13145	0.04858	1.04063	0.02307	0.17912	0.00722
125468A	1.25198	0.06219	1.11960	0.02486	0.27254	0.00719
411844	0.78535	0.02881	-1.01498	0.07136	0.16560	0.03247
406090	1.12356	0.04052	0.61261	0.02176	0.16611	0.00853
412431	1.15257	0.05476	1.21181	0.02494	0.19633	0.00684
413996	0.56868	0.05534	2.51971	0.11174	0.11245	0.00989
414004	0.72063	0.03537	0.04085	0.06342	0.27798	0.02118
128195A	1.04306	0.04382	0.96973	0.02395	0.16516	0.00787
400206	1.15507	0.03914	0.26316	0.02358	0.19186	0.01026
408317	0.41555	0.03237	1.35562	0.07813	0.10249	0.02296
400685	0.62935	0.03312	0.66011	0.05054	0.16024	0.01727
414022	0.48479	0.03108	0.39747	0.09785	0.16498	0.02873
408319	0.98657	0.04408	0.31957	0.03711	0.33650	0.01307
412320	1.17537	0.03842	-0.12494	0.02740	0.21452	0.01290
412115	0.83752	0.03628	0.51902	0.03517	0.19975	0.01301
406099	0.52026	0.03642	0.99136	0.06813	0.18075	0.02094
400114	0.63888	0.05784	1.73590	0.06475	0.29135	0.01289
400695	0.98206	0.03719	-0.35745	0.04438	0.28042	0.01866
414013	0.74434	0.02930	0.24427	0.03974	0.12173	0.01544
415351	0.71382	0.04238	1.20399	0.04043	0.19747	0.01208
408332	1.19579	0.08196	1.61178	0.03621	0.29186	0.00649
551449B	1.27312	0.03839	1.94910	0.03218	0.00000	0.00000
551474B	1.03513	0.07757	3.54408	0.17625	0.00000	0.00000

Table 2.7.20
IRT Parameters for Polytomous Items
Mathematics Grade 6

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
551235A	1.06912	0.00997	-0.01904	0.00897	1.23344	0.01441	0.33391	0.01173	-0.30382	0.01170	-1.26354	0.01474	0.00000	0.00000
551235B	0.99322	0.01415	1.42080	0.01433	0.76117	0.01331	-0.76117	0.02368	0.00000	0.00000	n/a	n/a	n/a	n/a
551245A	1.53925	0.01572	1.00137	0.00715	1.32849	0.00938	0.31252	0.00989	-0.49138	0.01373	-1.14964	0.02184	0.00000	0.00000
551245B	1.36697	0.01862	1.19030	0.00972	1.07980	0.01008	-1.07980	0.02453	0.00000	0.00000	n/a	n/a	n/a	n/a
551449A	0.80815	0.00939	0.83613	0.01352	1.16603	0.01481	-1.16603	0.02282	0.00000	0.00000	n/a	n/a	n/a	n/a
551474A	0.33783	0.00000	4.84454	0.05936	2.51858	0.03771	-2.51858	0.12073	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.21
IRT Parameters for Dichotomous Items
Mathematics Grade 7

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
124508A	0.80709	0.03208	-0.80760	0.07354	0.23057	0.03119
123993A	0.82004	0.03956	0.75382	0.03578	0.22160	0.01273
400898	1.39767	0.04789	0.77407	0.01656	0.14902	0.00656
408640	1.51824	0.09977	1.73791	0.03156	0.23382	0.00515
408783	1.80280	0.12072	1.53777	0.02611	0.33975	0.00547
408770	0.81864	0.03356	-0.10686	0.05096	0.22854	0.01982
124136A	1.47758	0.04320	0.71150	0.01364	0.08067	0.00521
400979	1.11378	0.06367	1.02233	0.03161	0.39351	0.00908
408790	0.85522	0.06484	2.16102	0.06490	0.14682	0.00658
124351A	1.25011	0.04102	0.01413	0.02515	0.22712	0.01188
412082	1.49448	0.05732	0.76144	0.01813	0.24013	0.00726
400323	0.68783	0.06086	2.22550	0.08084	0.18111	0.00920
124505A	0.98850	0.04774	1.63582	0.03212	0.08315	0.00538
412147	0.95645	0.04324	0.82189	0.02874	0.22602	0.01035
124343A	1.38442	0.04759	0.92011	0.01621	0.11651	0.00572
400168	1.36764	0.05034	0.20611	0.02453	0.31877	0.01067
410239	0.42360	0.02007	-0.89324	0.14465	0.11306	0.04205
400873	1.41830	0.06951	1.14301	0.02225	0.28406	0.00679
412513	0.67070	0.02520	-0.65289	0.07109	0.11604	0.02870
406163	1.51544	0.05689	0.77361	0.01744	0.22292	0.00701
408731	0.72542	0.02362	-1.61701	0.08017	0.10751	0.03901
408734	0.85500	0.02874	-0.53646	0.04776	0.13431	0.02178
410223	0.55152	0.03132	0.32468	0.08032	0.17166	0.02557
400958	0.77017	0.03109	0.33691	0.03863	0.13921	0.01512
408597	0.83275	0.03387	0.22702	0.03998	0.19506	0.01566
124358A	1.34893	0.03865	0.27446	0.01692	0.11900	0.00800
408567	0.86384	0.06332	1.75684	0.04873	0.25377	0.00853
400983	0.77194	0.02910	-0.95194	0.07581	0.17419	0.03370
400990	0.59810	0.04838	0.88216	0.08032	0.39628	0.01995
123999A	1.46511	0.06456	0.96513	0.02011	0.27491	0.00703
408632	1.04259	0.06265	1.69706	0.03699	0.18089	0.00646
124510A	0.90843	0.04375	0.85001	0.03166	0.24432	0.01103
412118	0.70974	0.03153	0.27606	0.04891	0.16507	0.01813
124715A	0.85770	0.03457	-0.60382	0.06415	0.27155	0.02621
123969A	0.95845	0.05106	1.06370	0.03153	0.28093	0.00983
124647A	0.78063	0.03396	0.16093	0.04809	0.21709	0.01796
551426B	1.19647	0.04976	2.60958	0.06155	0.00000	0.00000
551445B	1.54909	0.04125	1.64795	0.02093	0.00000	0.00000

Table 2.7.22
IRT Parameters for Polytomous Items
Mathematics Grade 7

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
551403A	1.02651	0.00989	0.37939	0.00948	1.15124	0.01330	0.22426	0.01186	-0.20872	0.01228	-1.16678	0.01638	0.00000	0.00000
551403B	1.09773	0.01316	0.07284	0.00974	0.58872	0.01216	-0.58872	0.01206	0.00000	0.00000	n/a	n/a	n/a	n/a
551426A	0.91003	0.01191	1.50329	0.01303	1.64381	0.01348	-1.64381	0.04125	0.00000	0.00000	n/a	n/a	n/a	n/a
551445A	1.02471	0.01230	0.81266	0.01109	0.83331	0.01219	-0.83331	0.01724	0.00000	0.00000	n/a	n/a	n/a	n/a
551465A	1.01705	0.01146	1.43019	0.01142	1.13650	0.01218	0.51328	0.01323	-0.26155	0.01744	-1.38822	0.03406	0.00000	0.00000
551465B	1.11996	0.01937	1.93777	0.01735	0.69544	0.01401	-0.69544	0.03054	0.00000	0.00000	n/a	n/a	n/a	n/a

Table 2.7.23
IRT Parameters for Dichotomous Items
Mathematics Grade 8

Item ID	Parameters and Measures of Standard Error					
	a	SE(a)	b	SE(b)	c	SE(c)
413335	0.59562	0.01548	-0.91122	0.02738	0.00000	0.00000
400319	1.26240	0.07007	0.86128	0.03031	0.42494	0.00940
414370	0.37209	0.02965	1.30656	0.10186	0.08583	0.02787
413229	0.76223	0.01931	-1.41423	0.03102	0.00000	0.00000
126030A	0.90993	0.05997	1.43429	0.03965	0.26544	0.00981
400177	0.88187	0.05379	1.46514	0.03772	0.19591	0.00939
400730	0.80515	0.03528	1.30973	0.02959	0.05054	0.00762
409239	0.96818	0.03058	-0.86153	0.04688	0.10215	0.02650
412662	0.42718	0.02532	0.73274	0.08379	0.07255	0.02494
413290	0.88752	0.02854	-0.58440	0.04429	0.08903	0.02276
401024	1.35763	0.20632	2.75229	0.13031	0.25000	0.00000
401030	1.11475	0.10915	2.09458	0.06471	0.29286	0.00649
401027	1.22947	0.08731	1.89806	0.04277	0.18233	0.00548
400345	0.38466	0.01375	1.28271	0.04886	0.00000	0.00000
414805	1.35049	0.04660	0.29872	0.02072	0.20505	0.01043
127148A	0.93499	0.05616	1.73293	0.04091	0.12806	0.00698
400985	1.07258	0.10244	2.01002	0.06192	0.31725	0.00702
412703	0.62968	0.02339	0.00172	0.04874	0.05785	0.01910
126885A	0.68537	0.02265	-1.17063	0.06979	0.08278	0.03205
412449	1.36672	0.05023	-0.04499	0.02750	0.30159	0.01393
400771	0.52181	0.04410	0.76984	0.10548	0.28797	0.02918
400780	0.06755	0.00000	0.05833	0.16963	0.10000	0.00000
127737A	0.89507	0.02734	-0.88097	0.04705	0.08077	0.02530
412756	1.26189	0.04016	-0.32854	0.02849	0.17438	0.01634
412946	0.44788	0.04267	1.10765	0.11237	0.21690	0.03149
400803	0.99350	0.03153	-0.81693	0.04536	0.10837	0.02581
408651	1.05953	0.10168	2.19720	0.07038	0.23298	0.00627
400191	0.49666	0.03566	2.75572	0.15185	0.20000	0.00000
401033	0.61533	0.04758	1.57156	0.05491	0.18103	0.01512
401035	1.30224	0.07030	1.42383	0.02726	0.20822	0.00634
408795	0.40843	0.01379	1.11652	0.04183	0.00000	0.00000
126395A	0.69273	0.02959	-0.78319	0.09105	0.15562	0.03930
412646	0.88423	0.06147	1.24716	0.04292	0.35298	0.01143
414880	0.75014	0.04225	1.02417	0.03958	0.18561	0.01393
408518	0.29069	0.01230	0.24431	0.03735	0.00000	0.00000
413314	1.03696	0.02908	0.00426	0.02194	0.05012	0.01084
406428	0.97976	0.05738	1.23374	0.03390	0.27021	0.00974
551249B	1.48575	0.03869	1.61675	0.02209	0.00000	0.00000
551366B	1.39337	0.04733	2.13895	0.03765	0.00000	0.00000

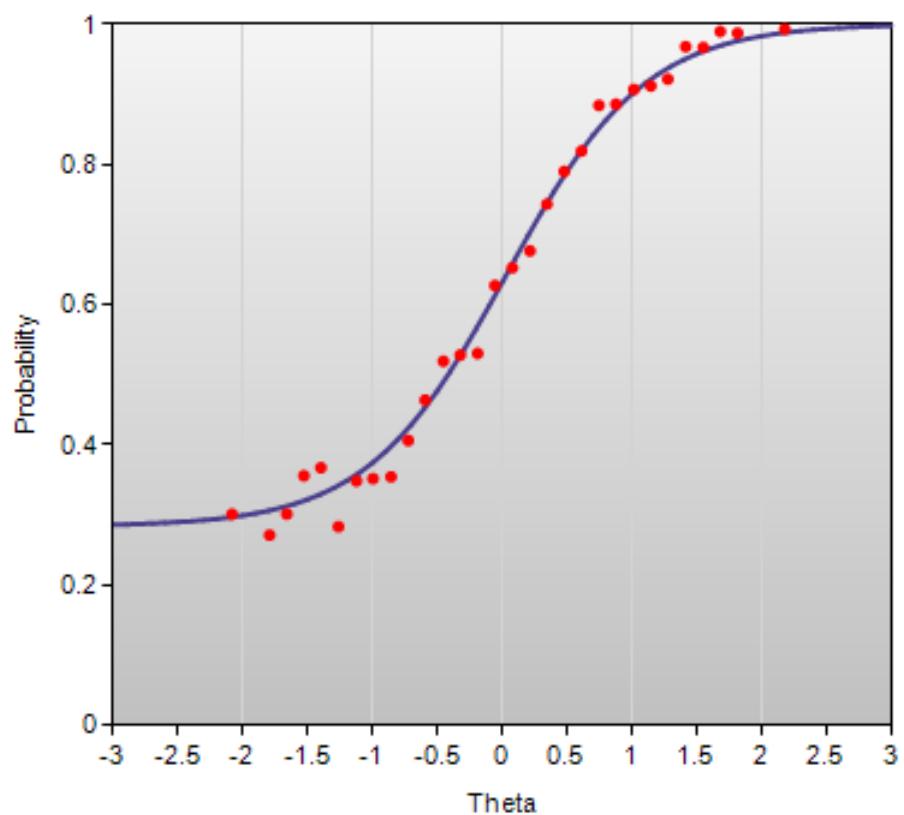
Table 2.7.24
IRT Parameters for Polytomous Items
Mathematics Grade 8

Item ID	Parameters and Measures of Standard Error													
	a	SE(a)	b	SE(b)	d0	SE(d0)	d1	SE(d1)	d2	SE(d2)	d3	SE(d3)	d4	SE(d4)
551249A	1.31409	0.02308	1.37297	0.01474	0.27972	0.01230	-0.27972	0.01626	0.00000	0.00000	n/a	n/a	n/a	n/a
551332A	1.52583	0.01906	1.15701	0.00872	0.68554	0.00920	0.15372	0.01070	-0.12080	0.01220	-0.71845	0.01799	0.00000	0.00000
551332B	1.26121	0.01906	1.39777	0.01241	0.62793	0.01132	-0.62793	0.02083	0.00000	0.00000	n/a	n/a	n/a	n/a
551366A	0.96835	0.01277	1.09859	0.01264	0.76308	0.01265	-0.76308	0.02007	0.00000	0.00000	n/a	n/a	n/a	n/a
551387A	1.00478	0.00925	0.85936	0.00974	1.74807	0.01384	0.68363	0.01197	-0.44390	0.01533	-1.98780	0.03623	0.00000	0.00000
551387B	1.05904	0.01579	1.53366	0.01406	0.78696	0.01265	-0.78696	0.02568	0.00000	0.00000	n/a	n/a	n/a	n/a

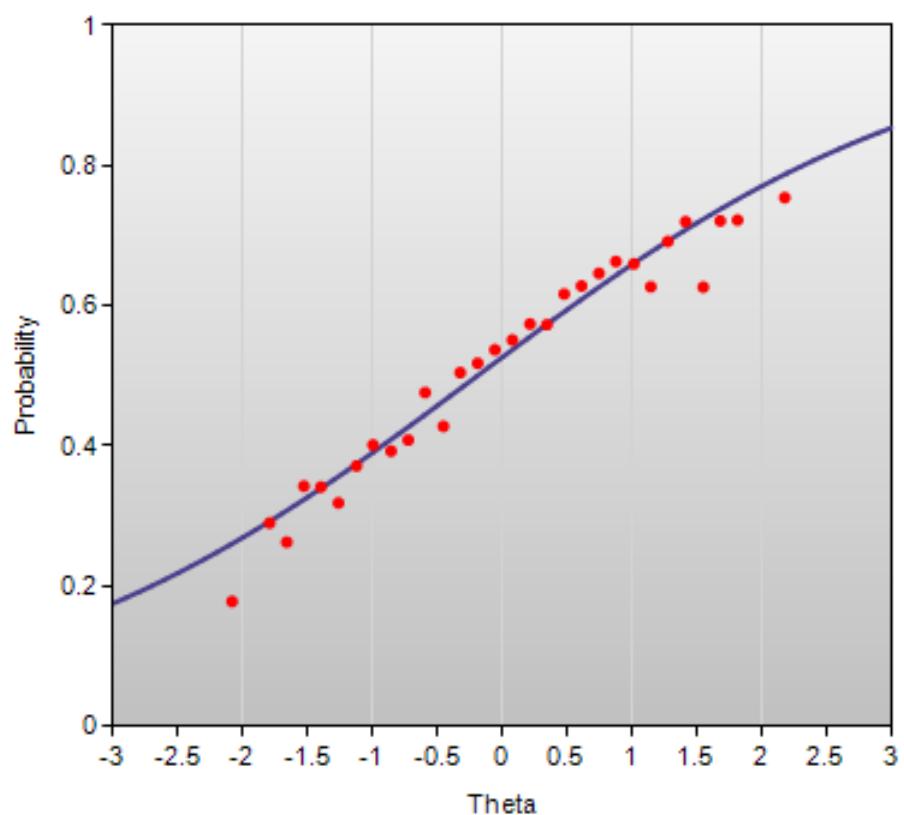
Section 2.8

Fit Plots of Watchlist Items

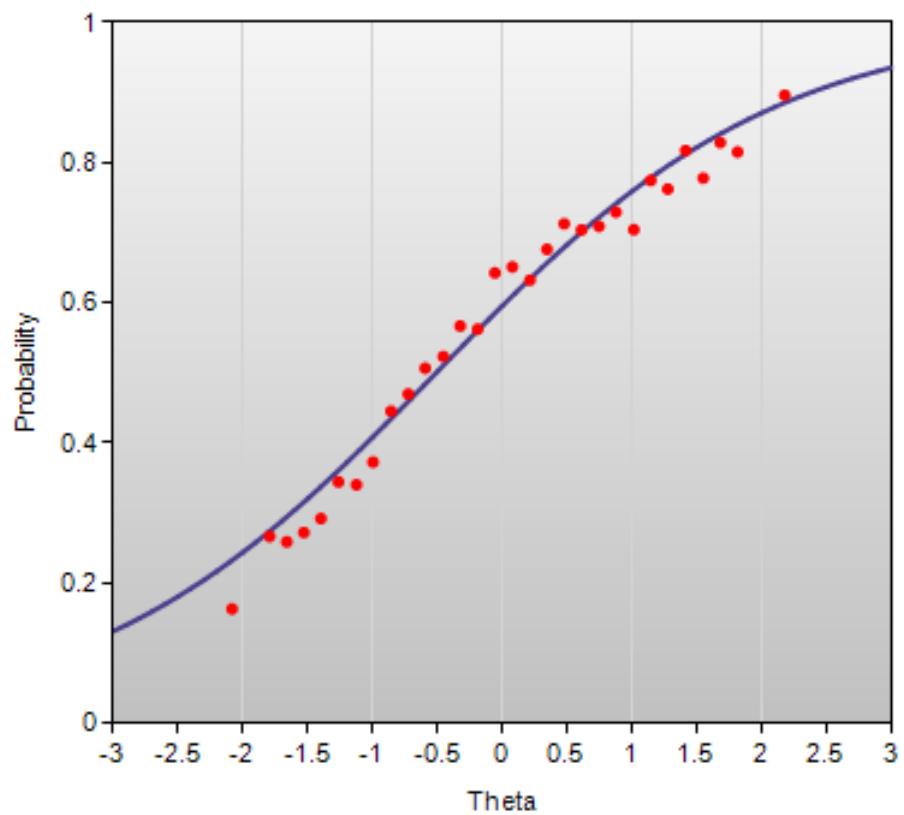
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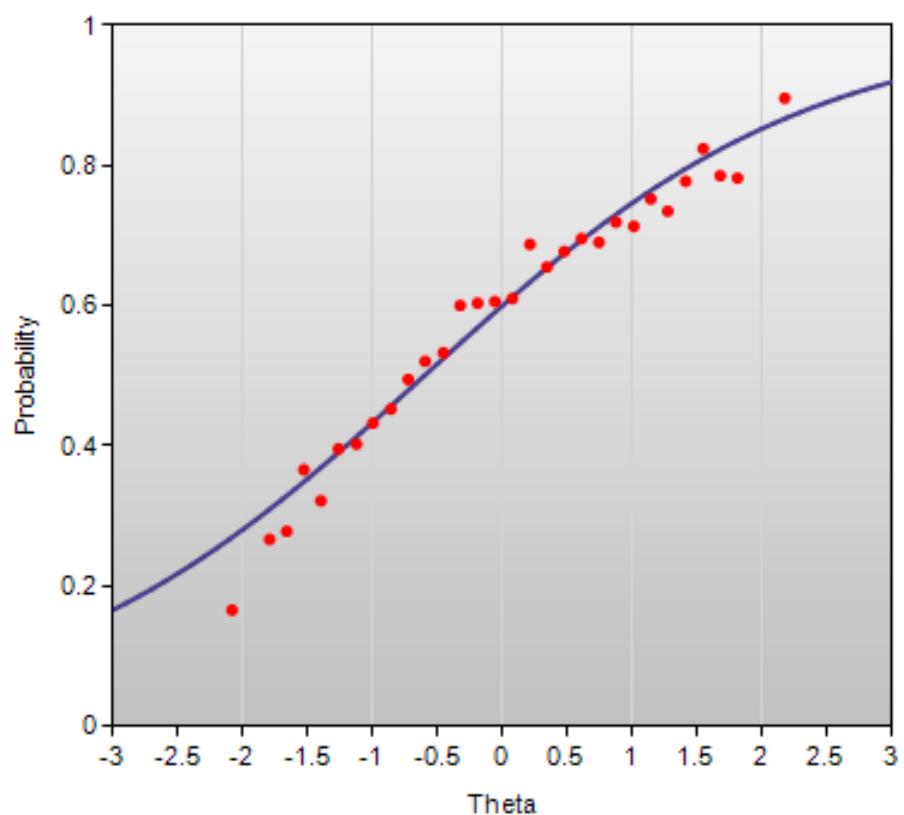
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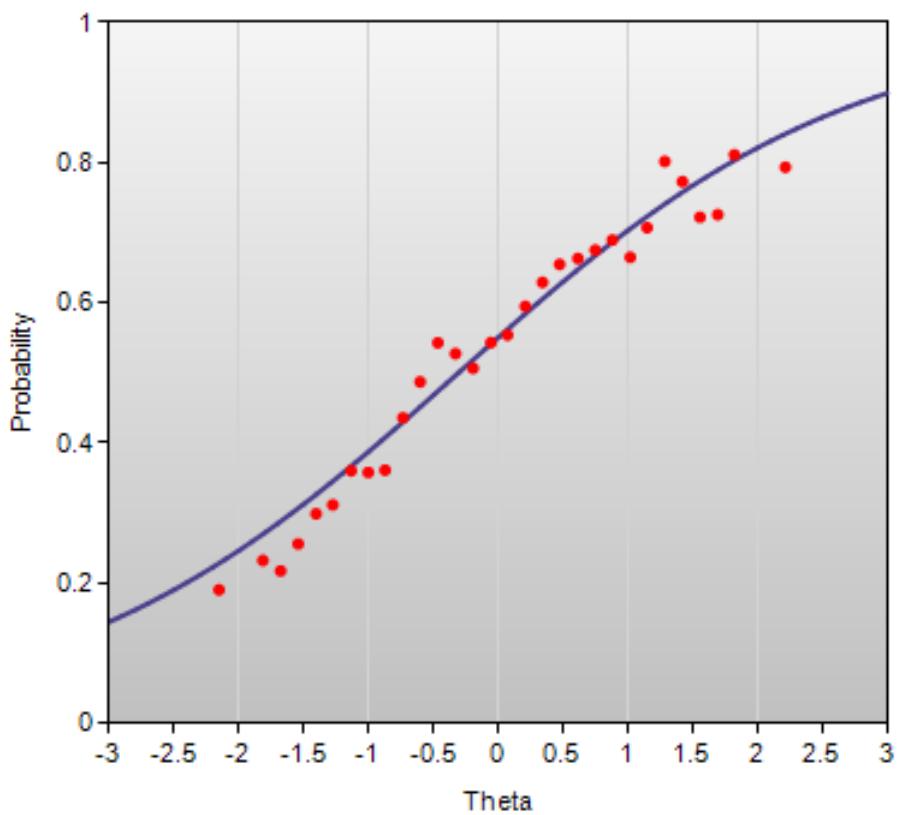
English Language Arts Grade 3: 421651



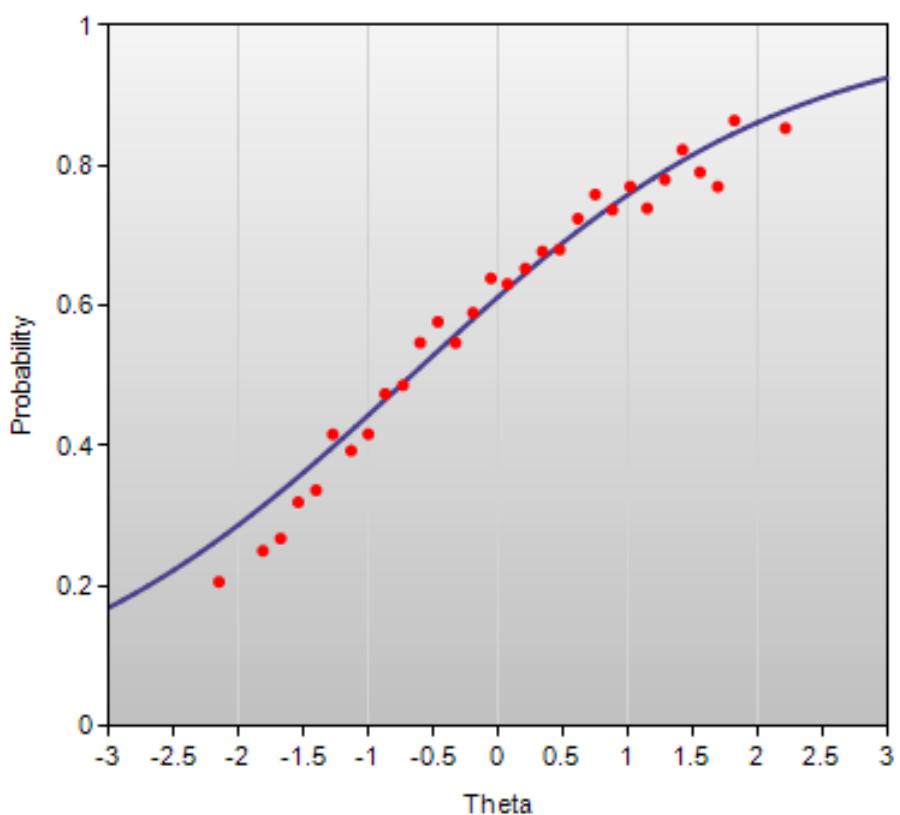
English Language Arts Grade 3: 421676



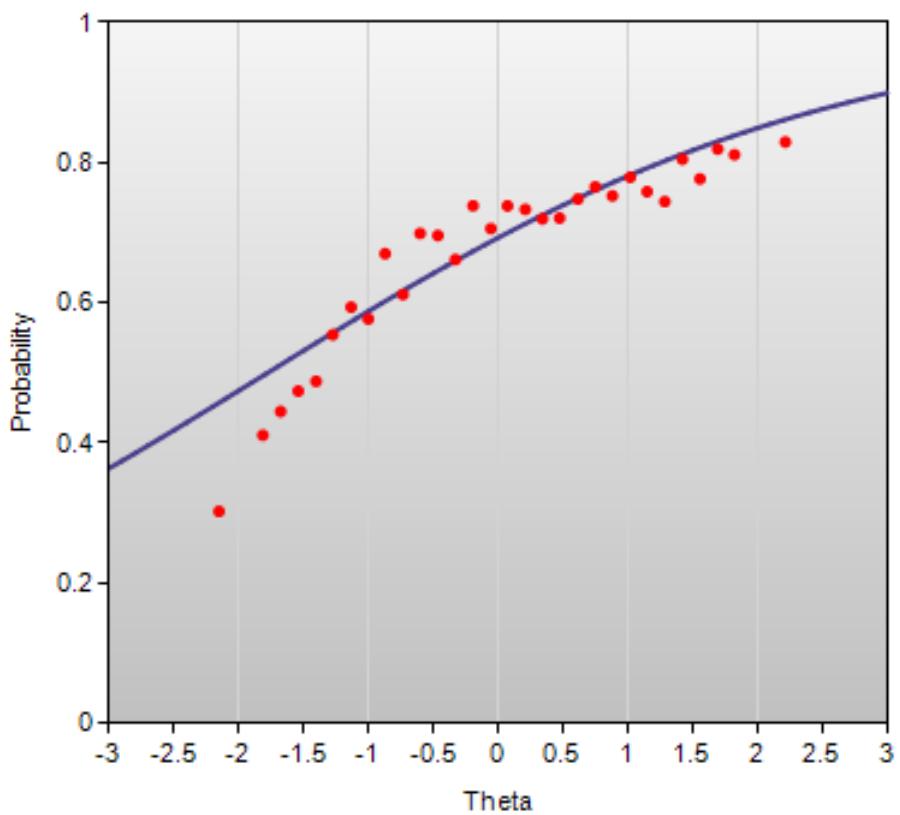
English Language Arts Grade 4: 130675A



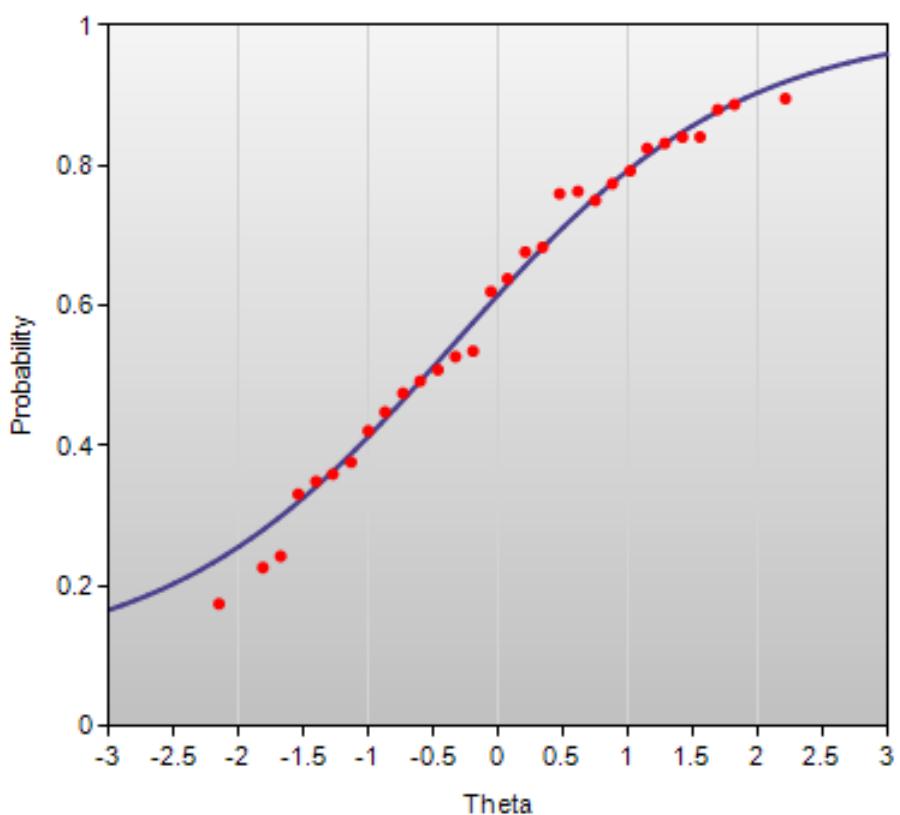
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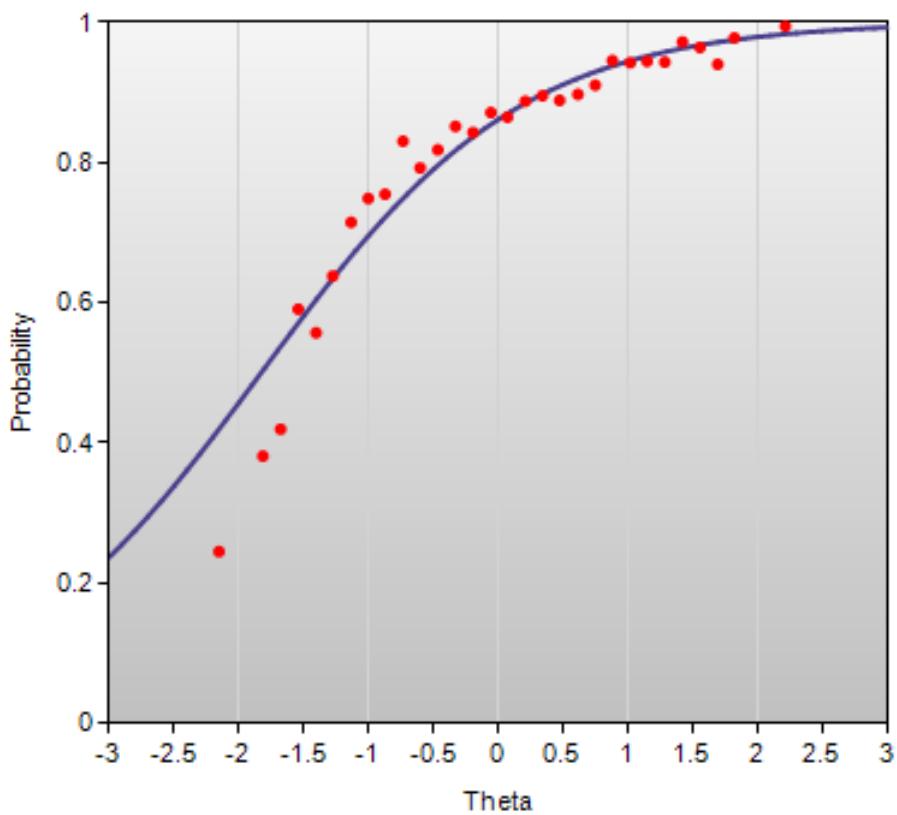
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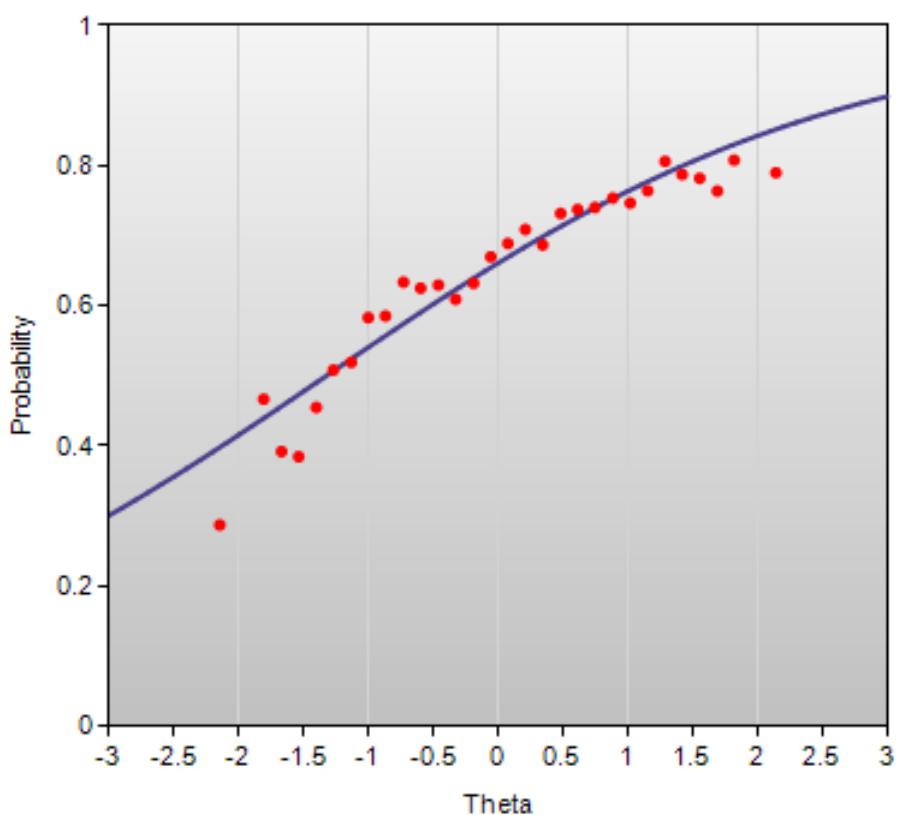
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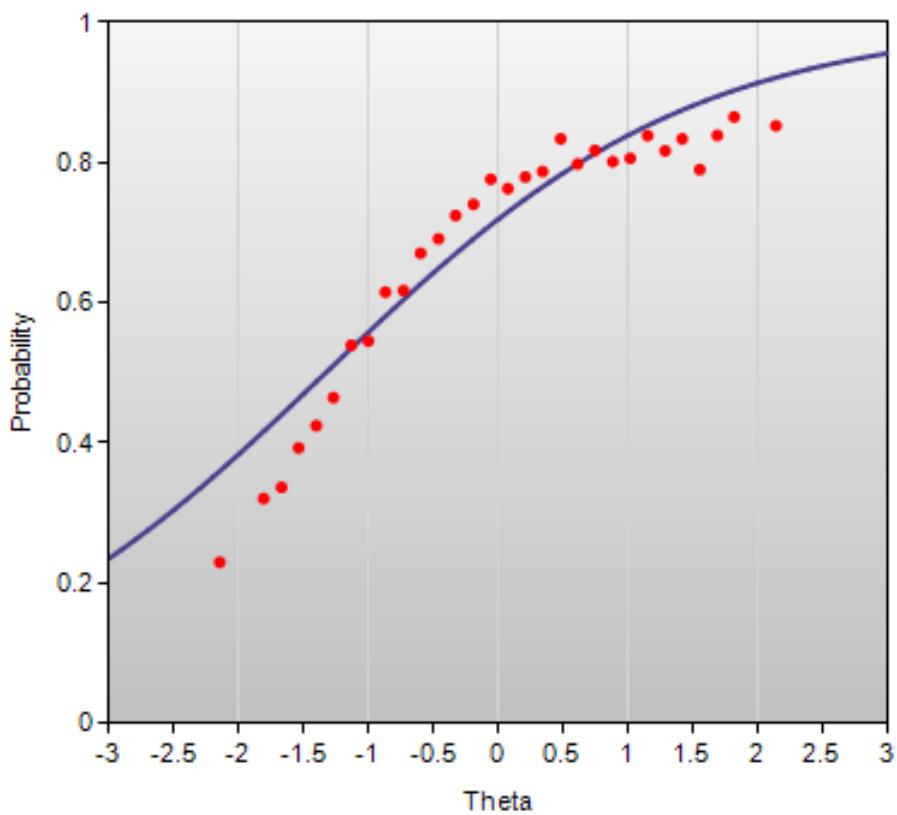
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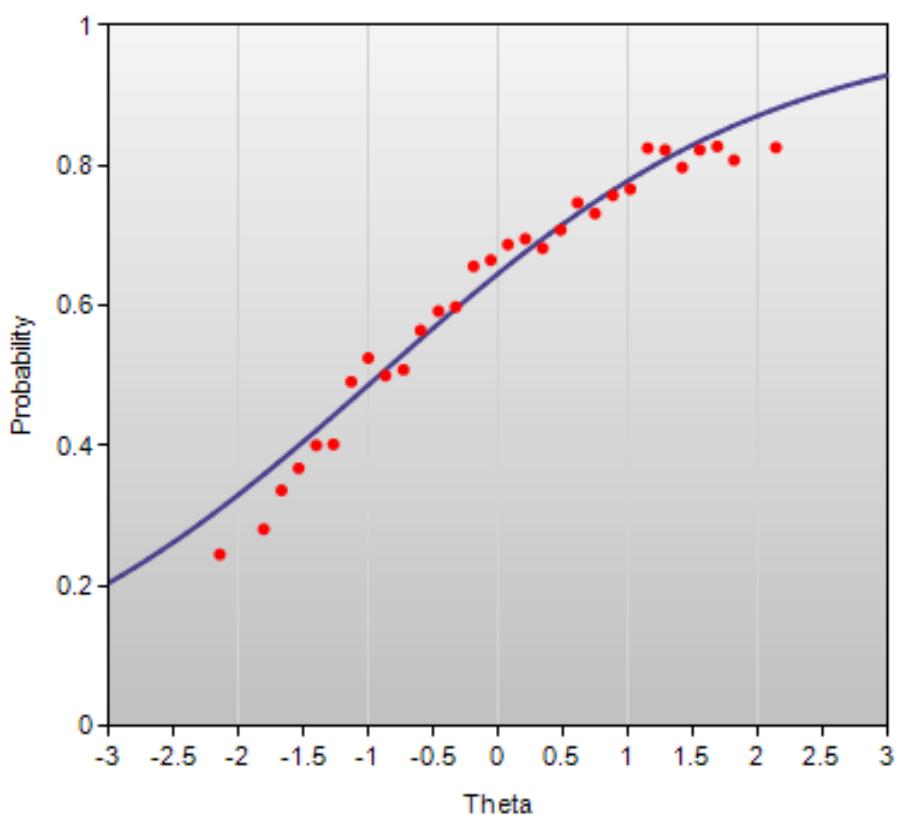
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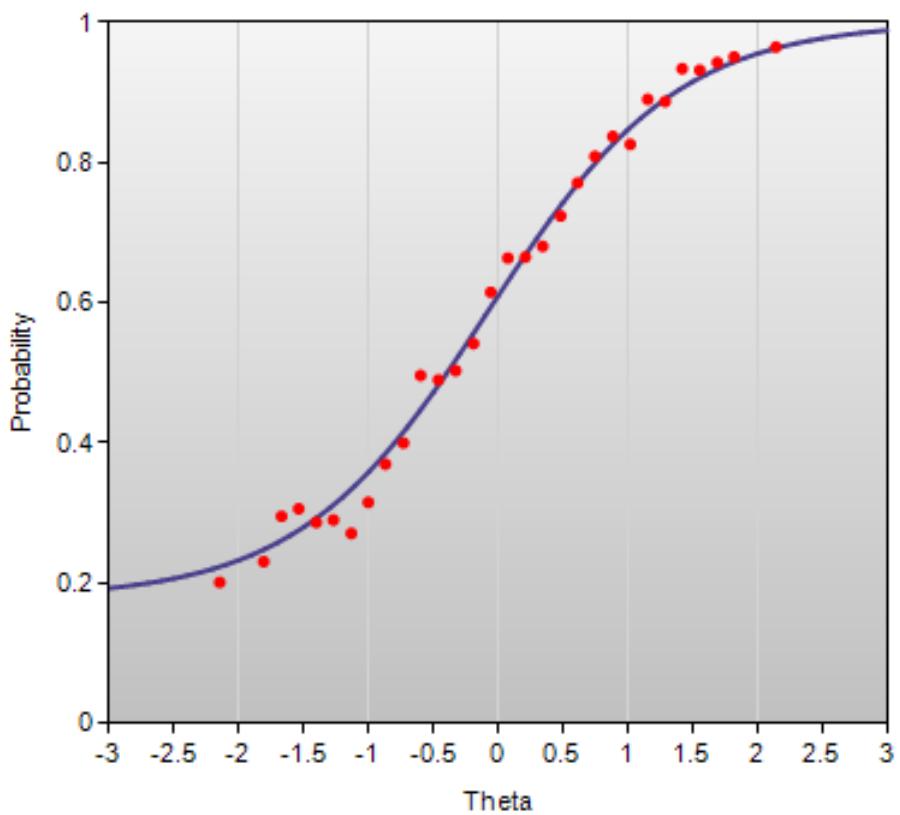
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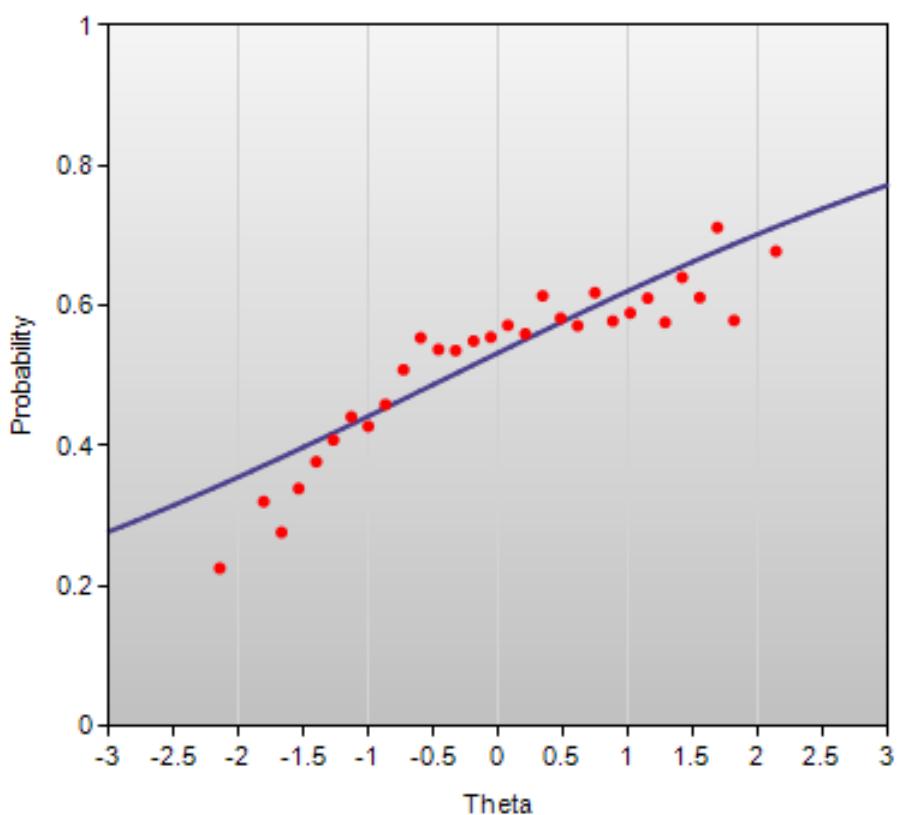
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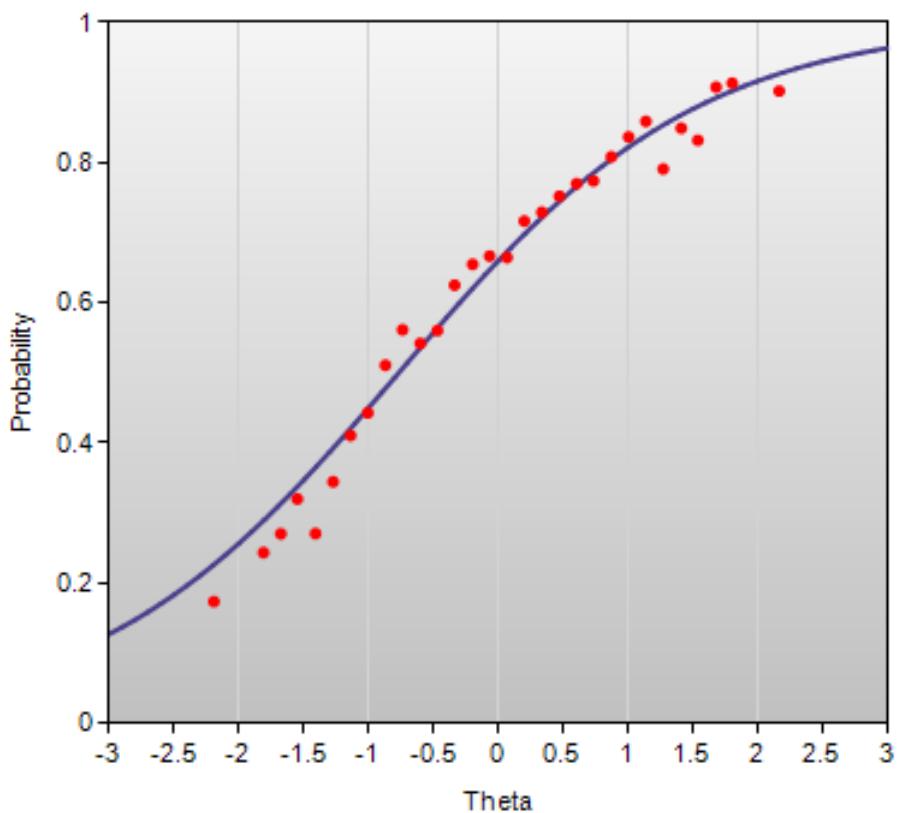
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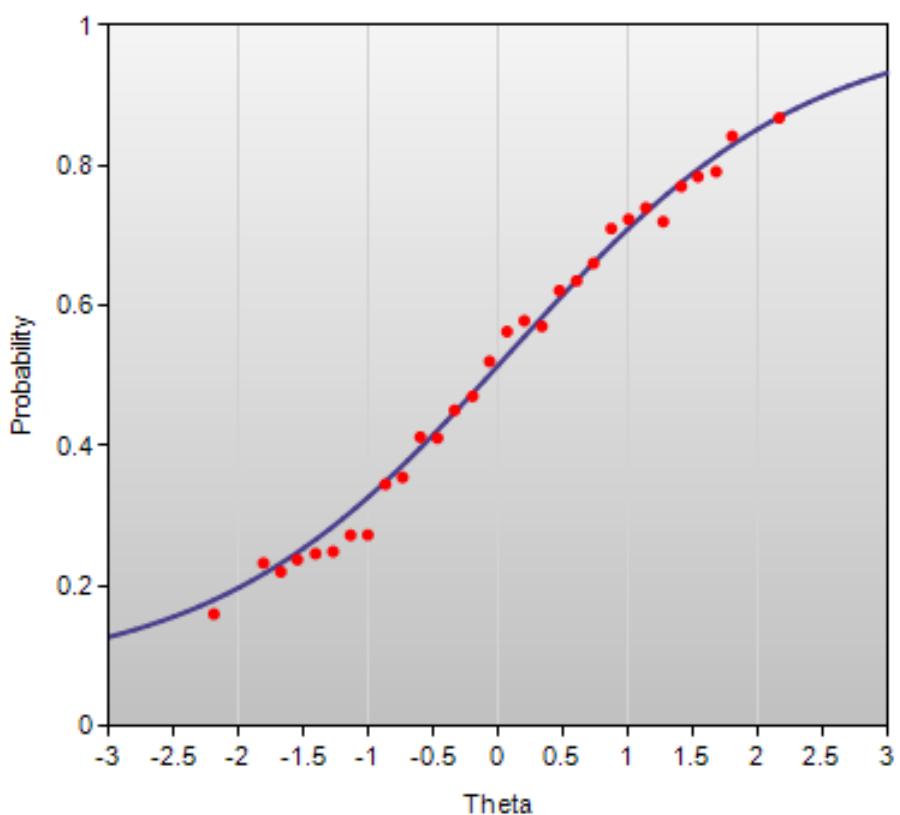
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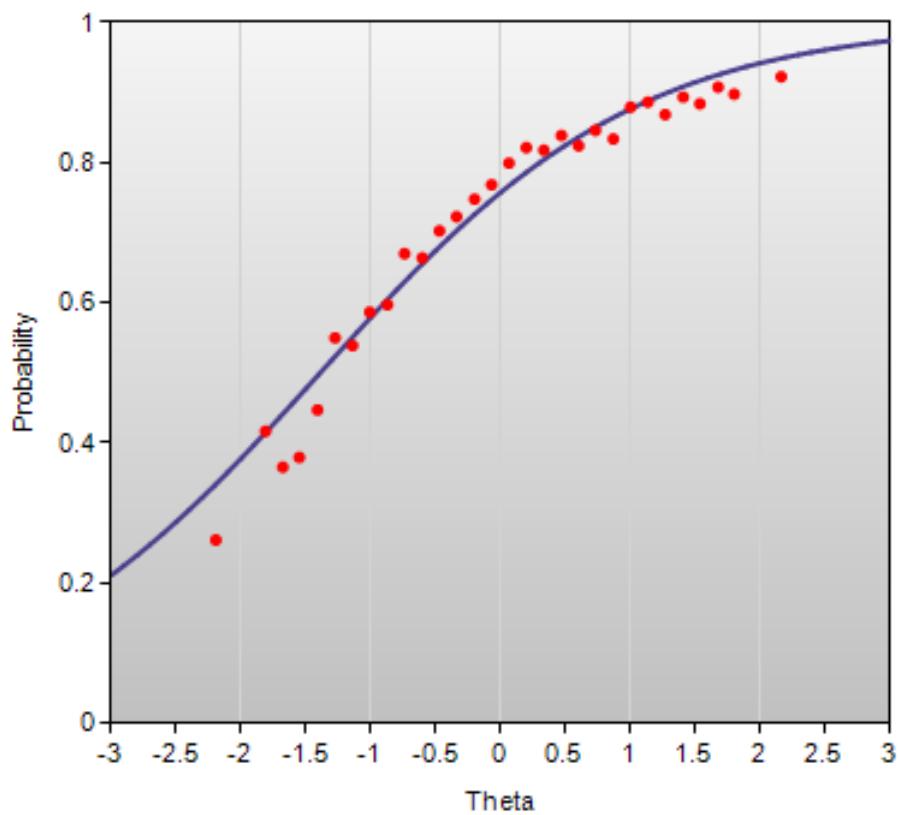
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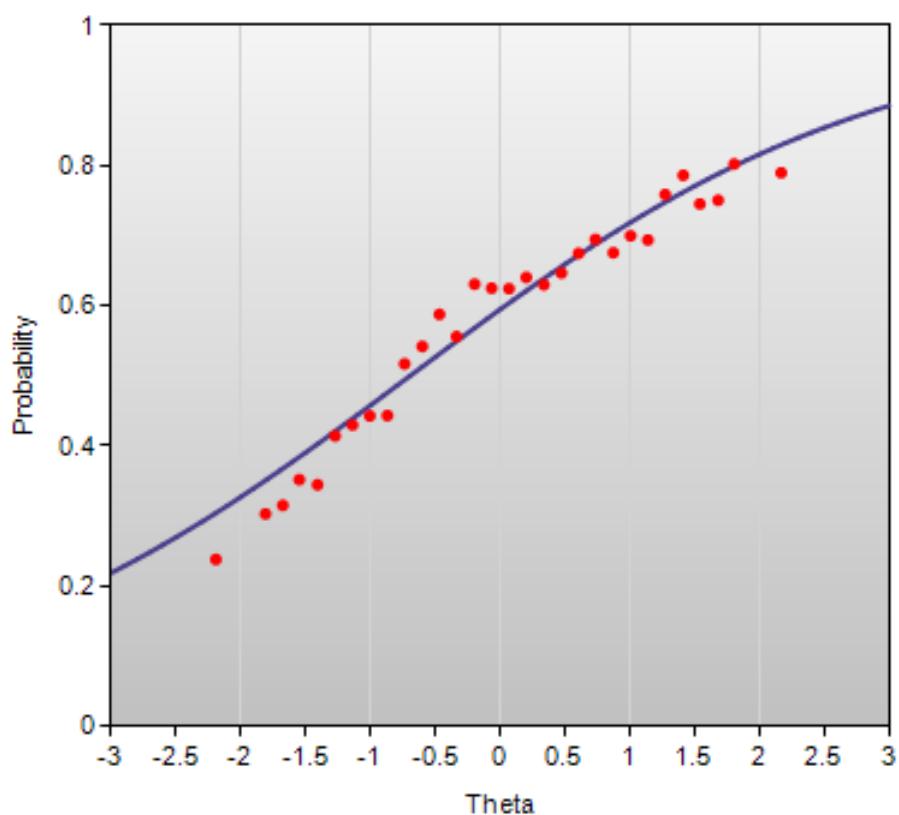
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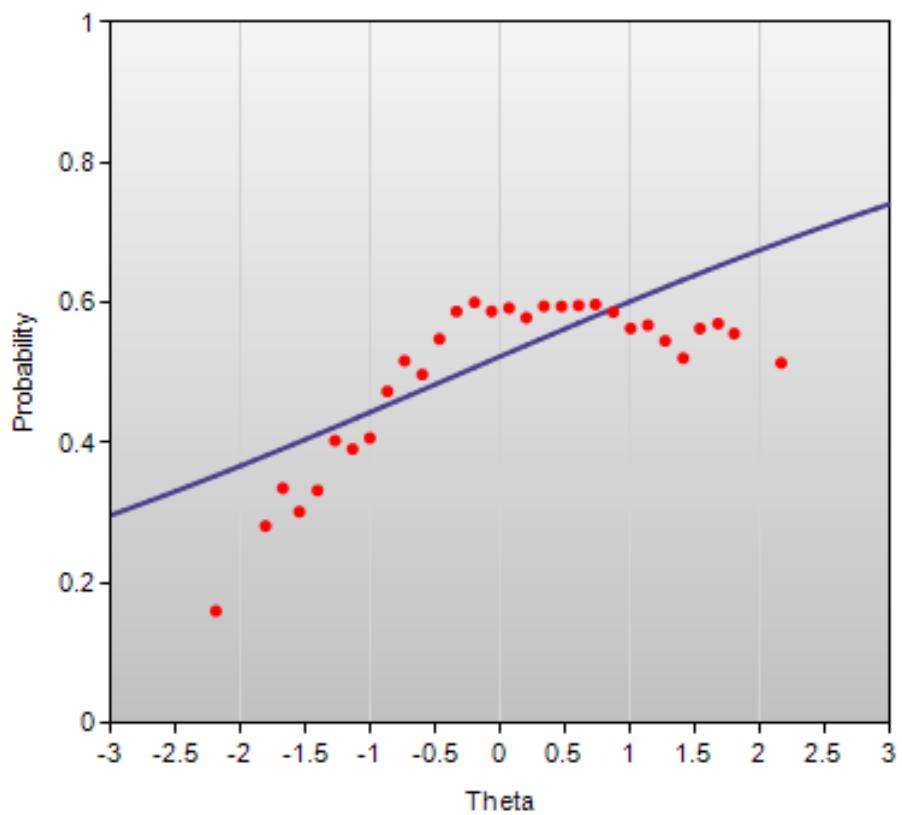
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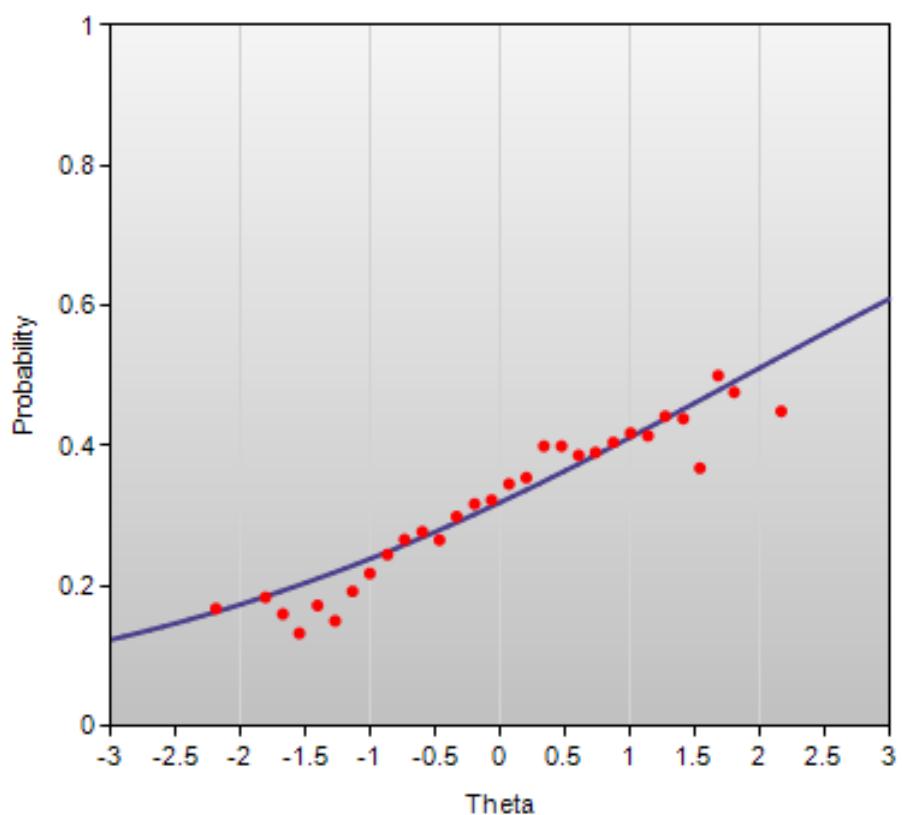
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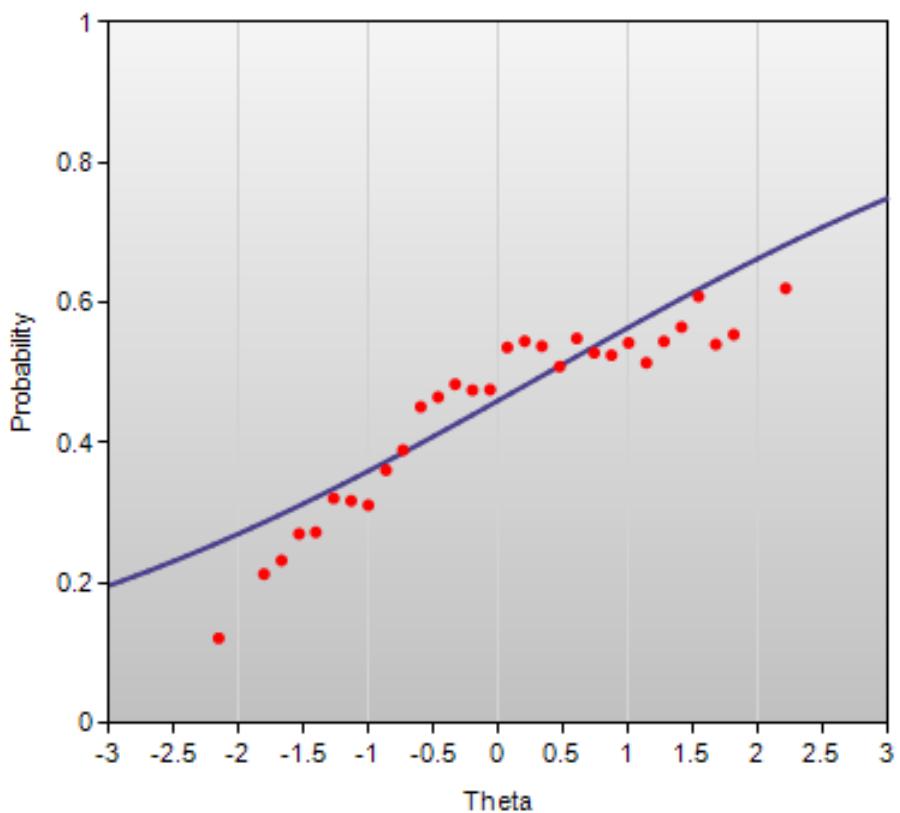
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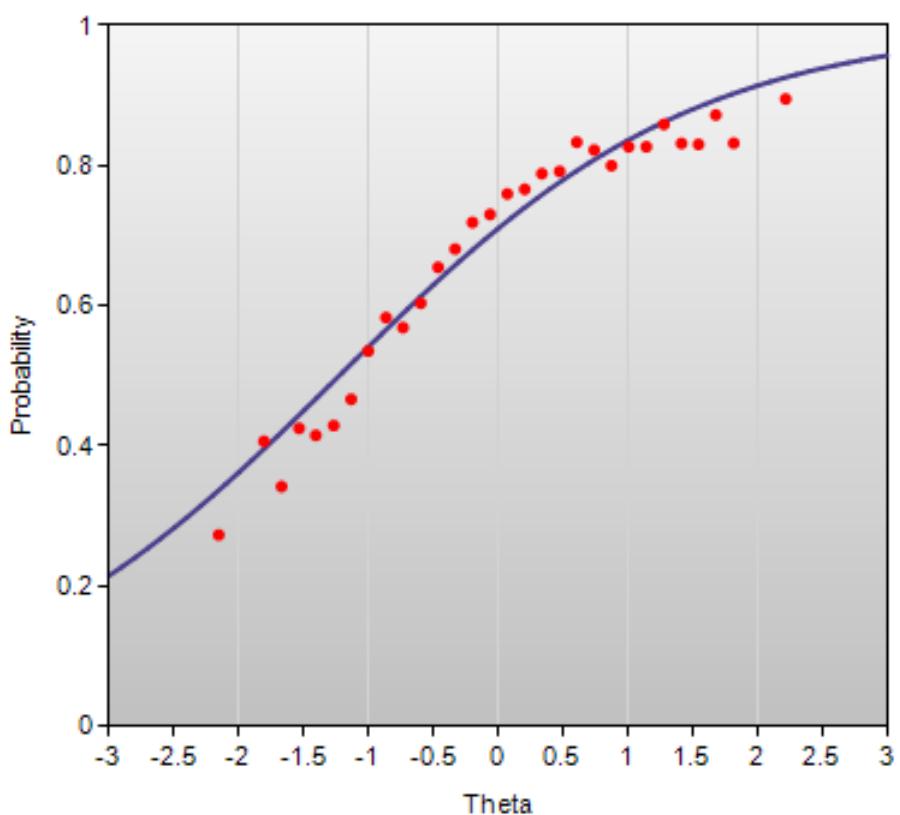
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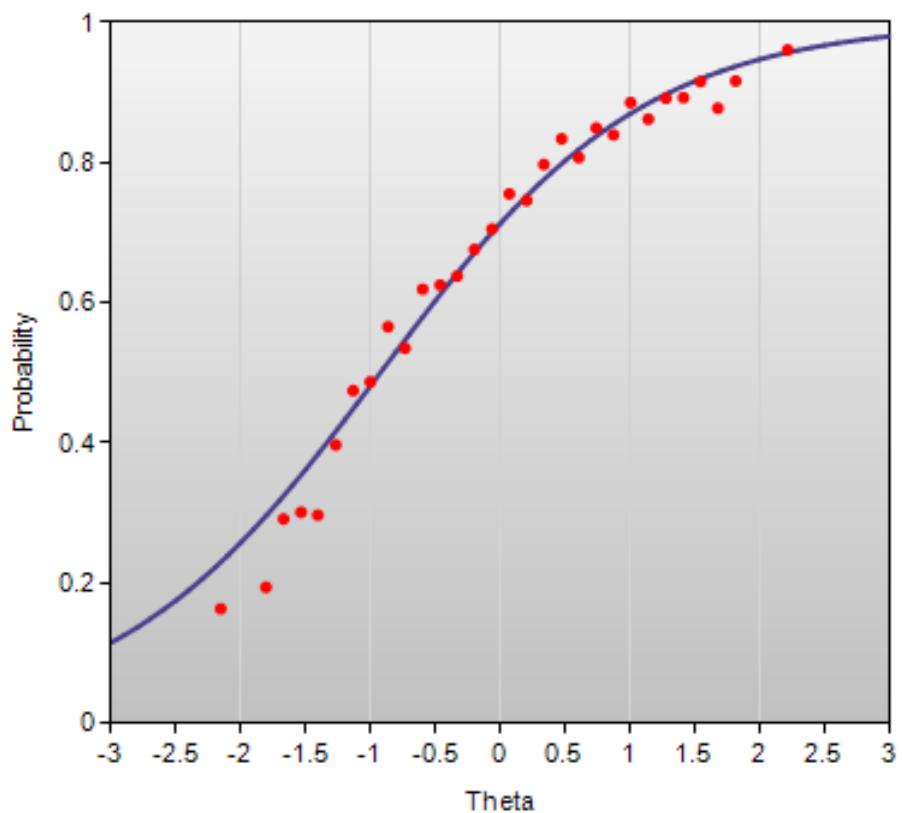
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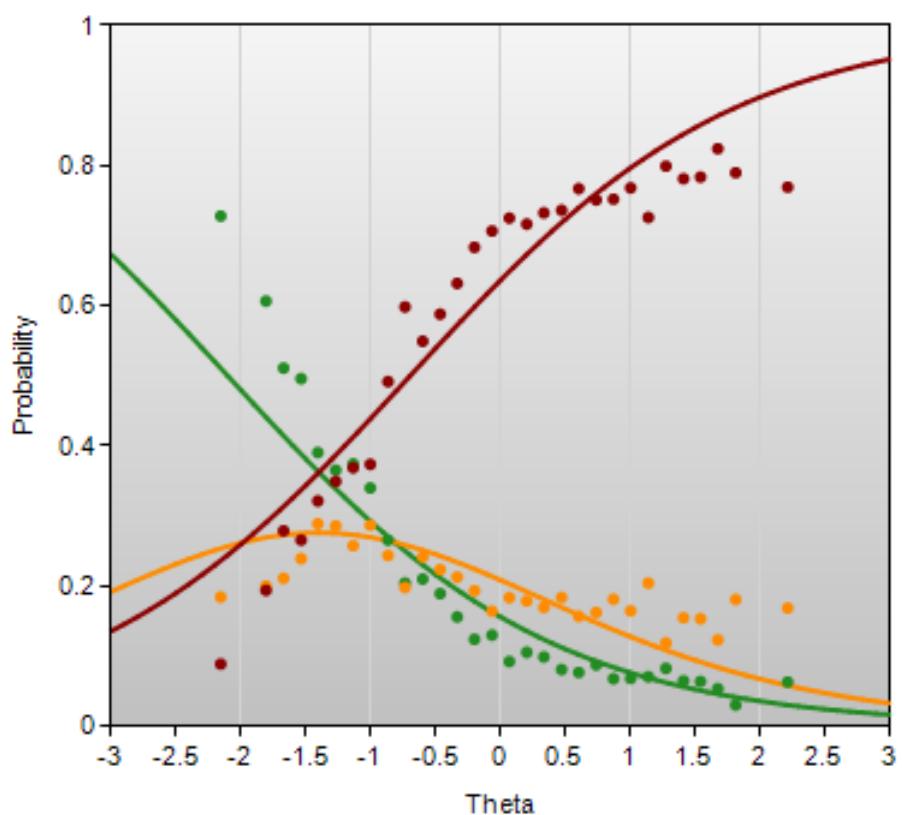
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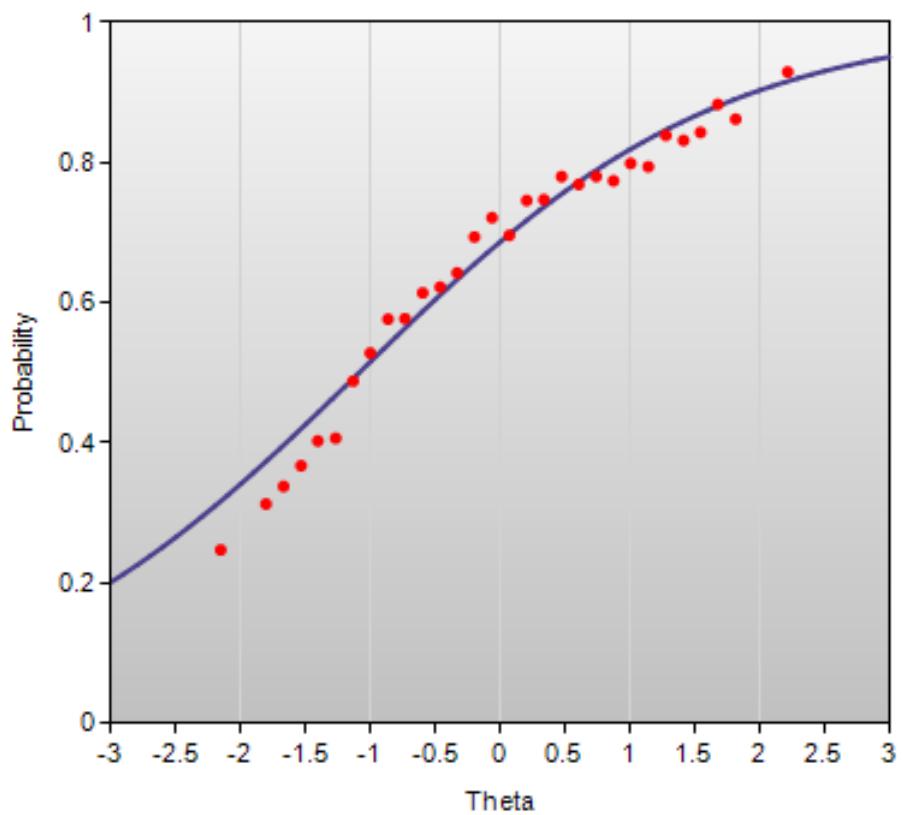
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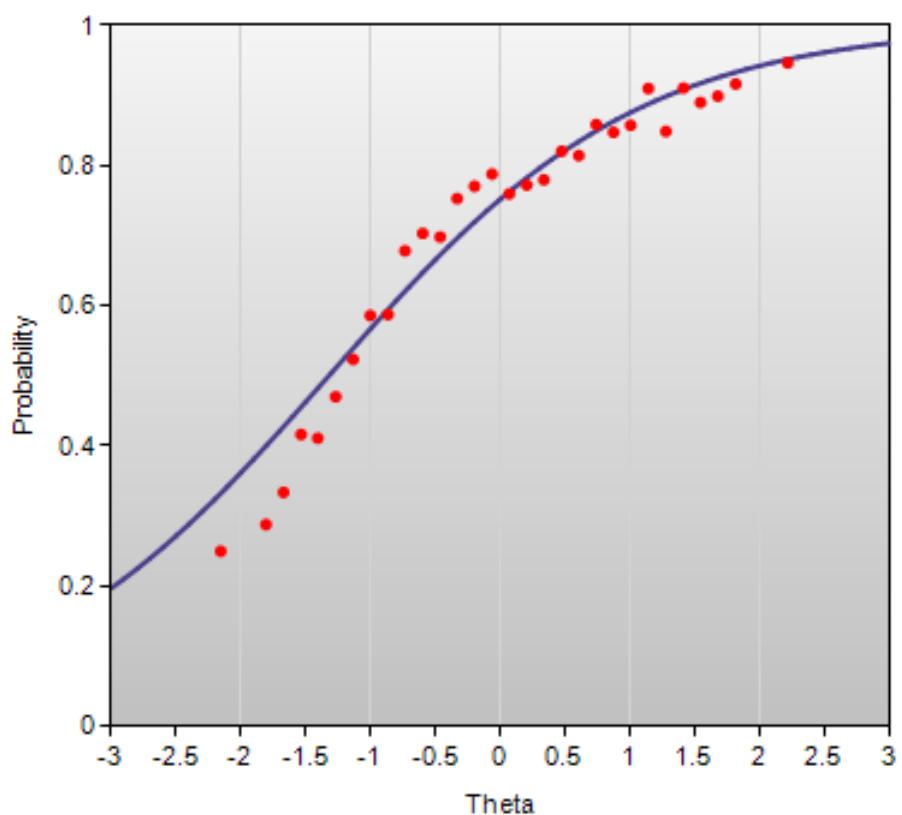
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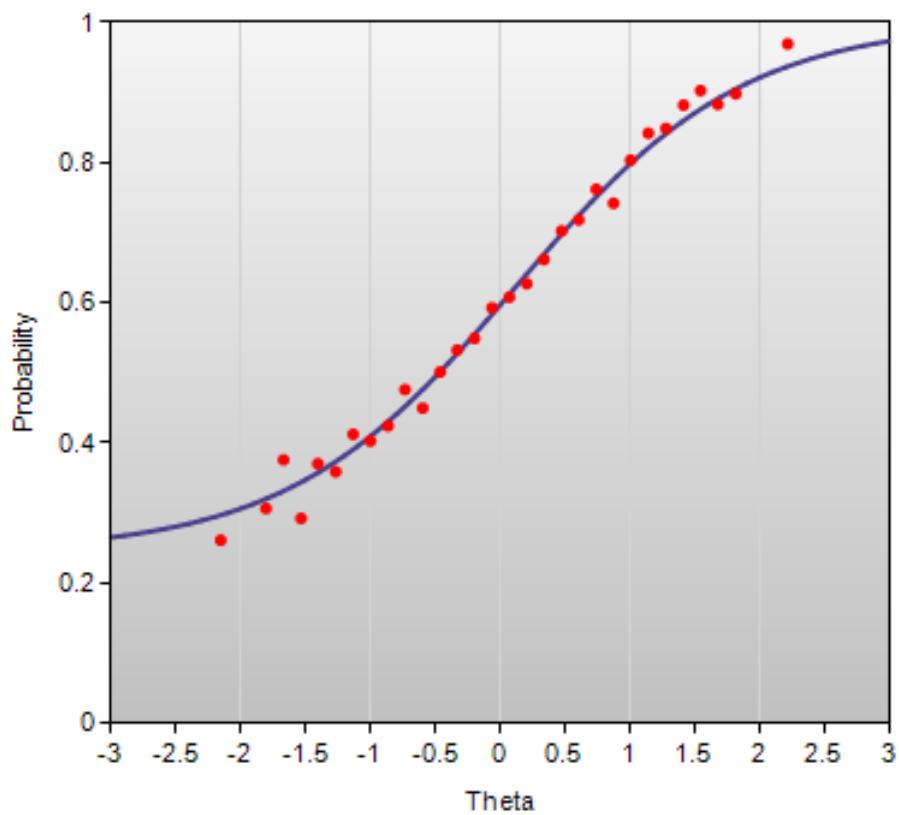
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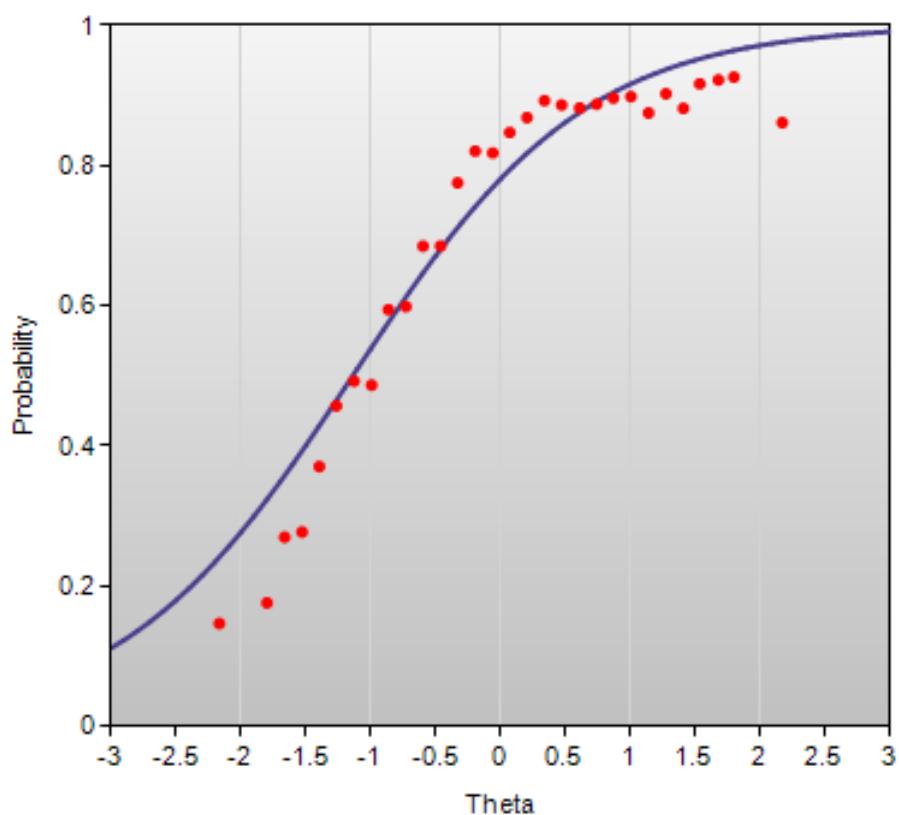
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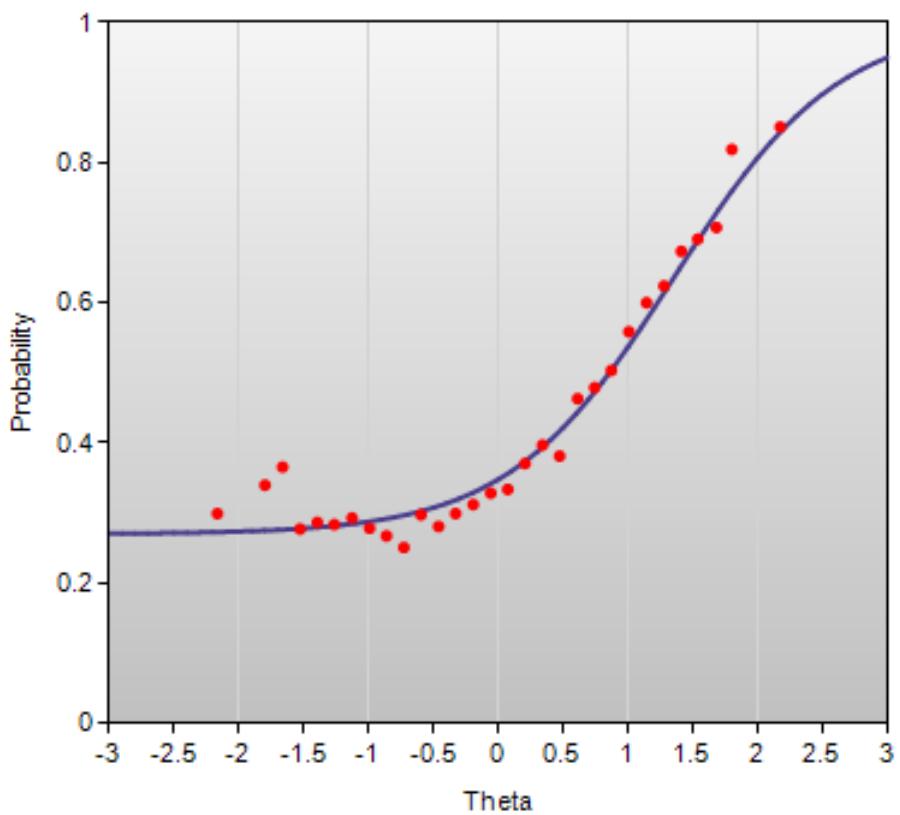
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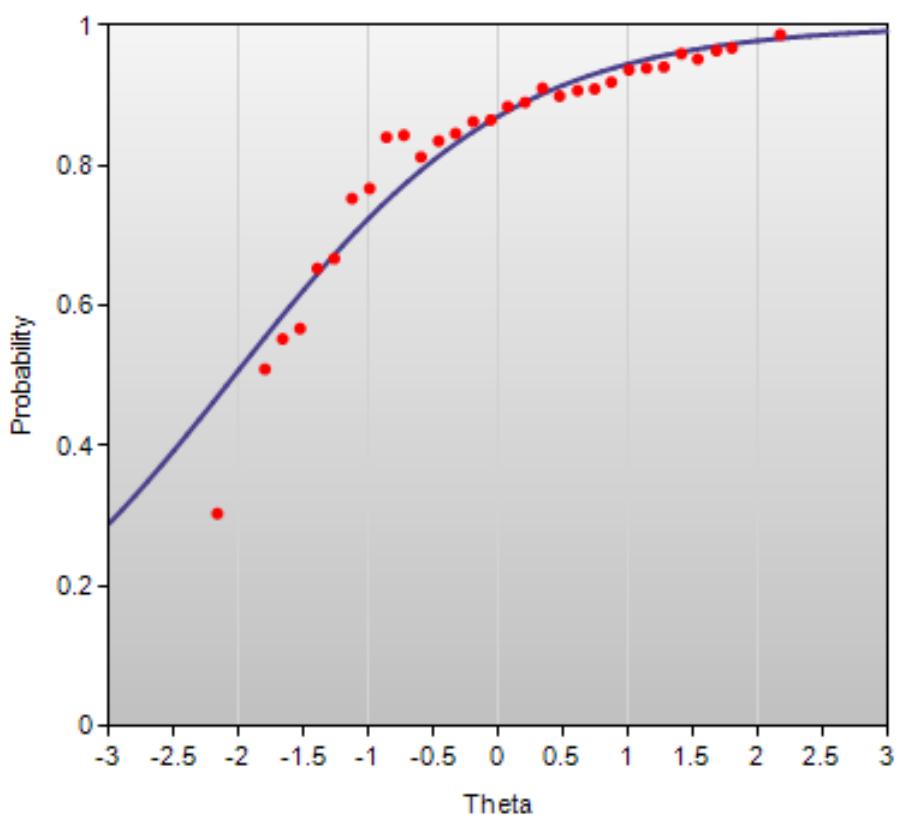
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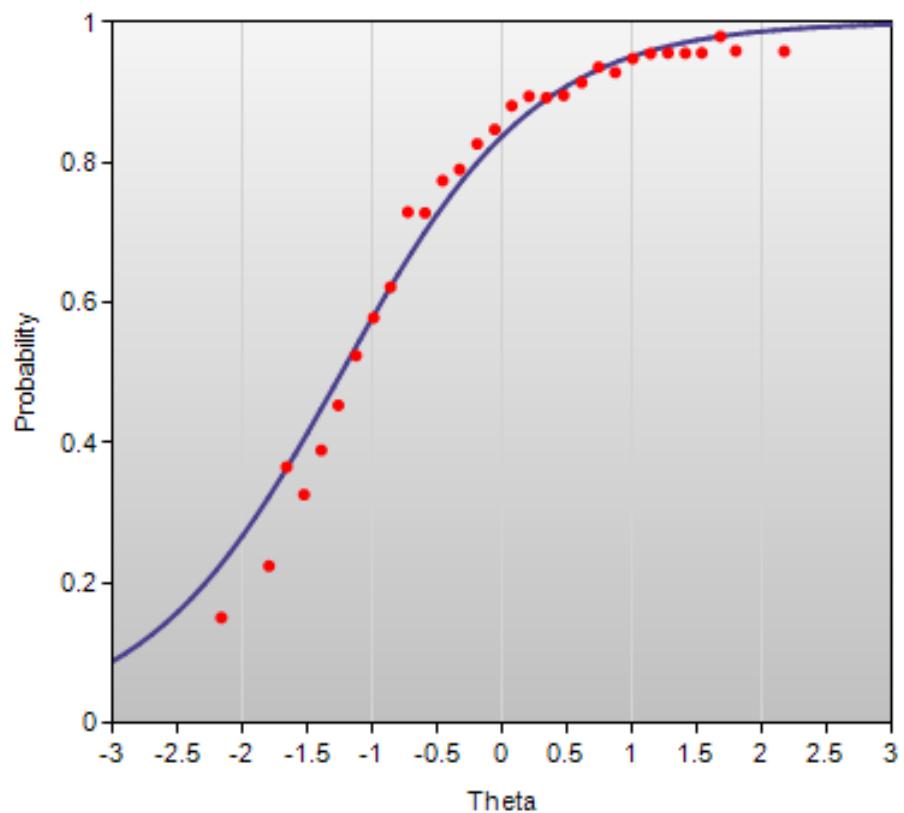
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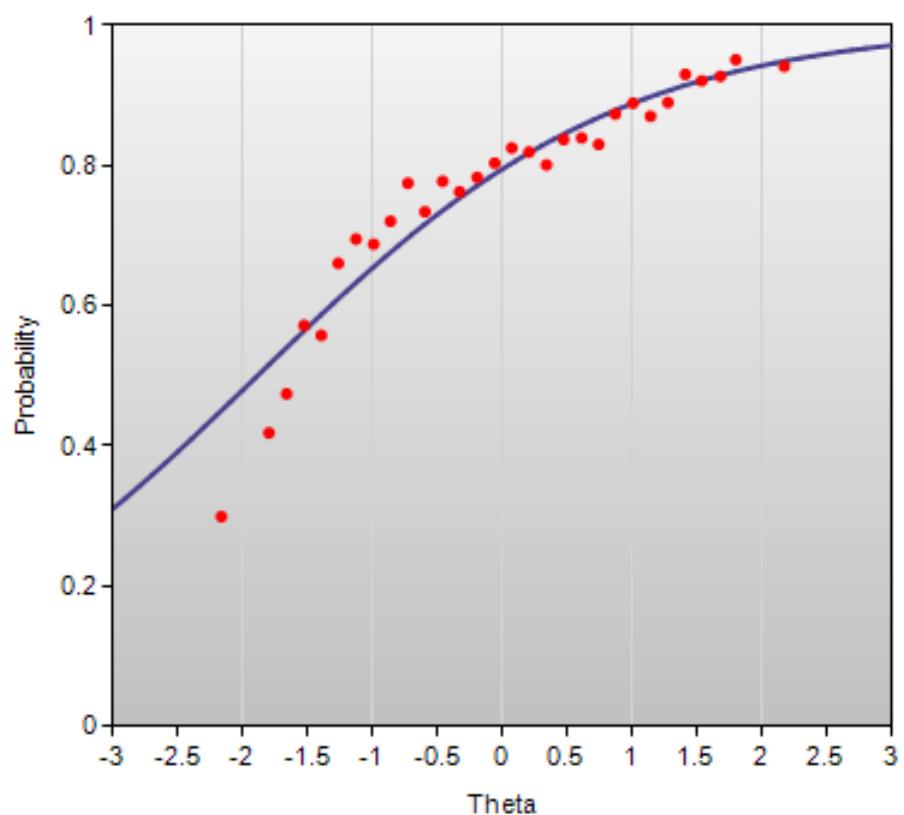
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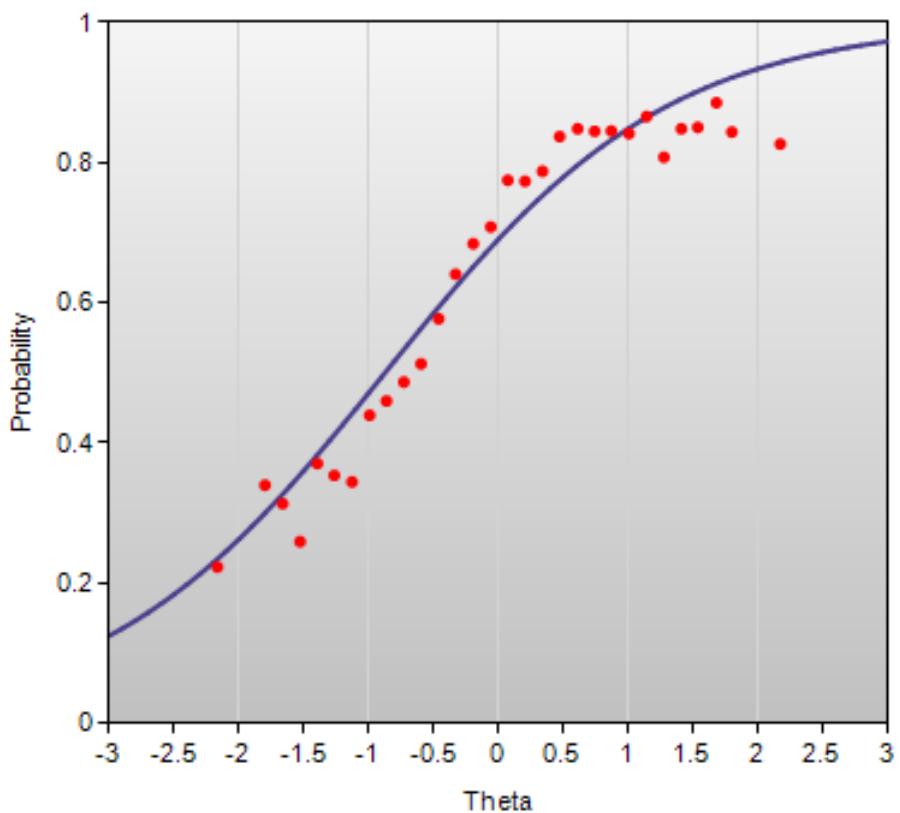
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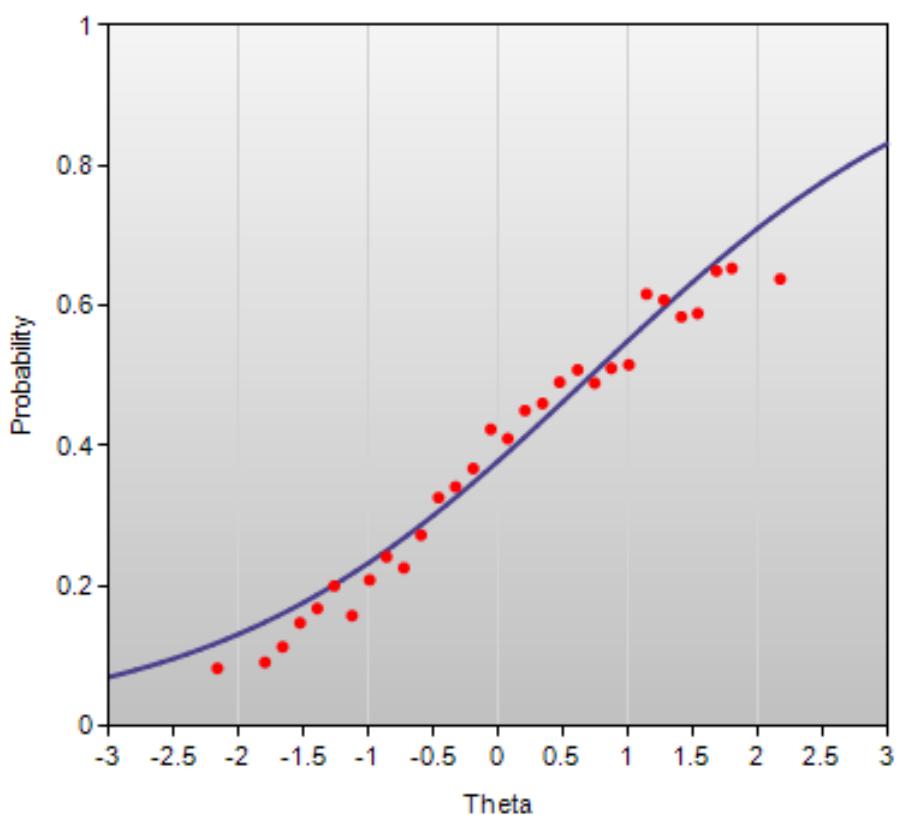
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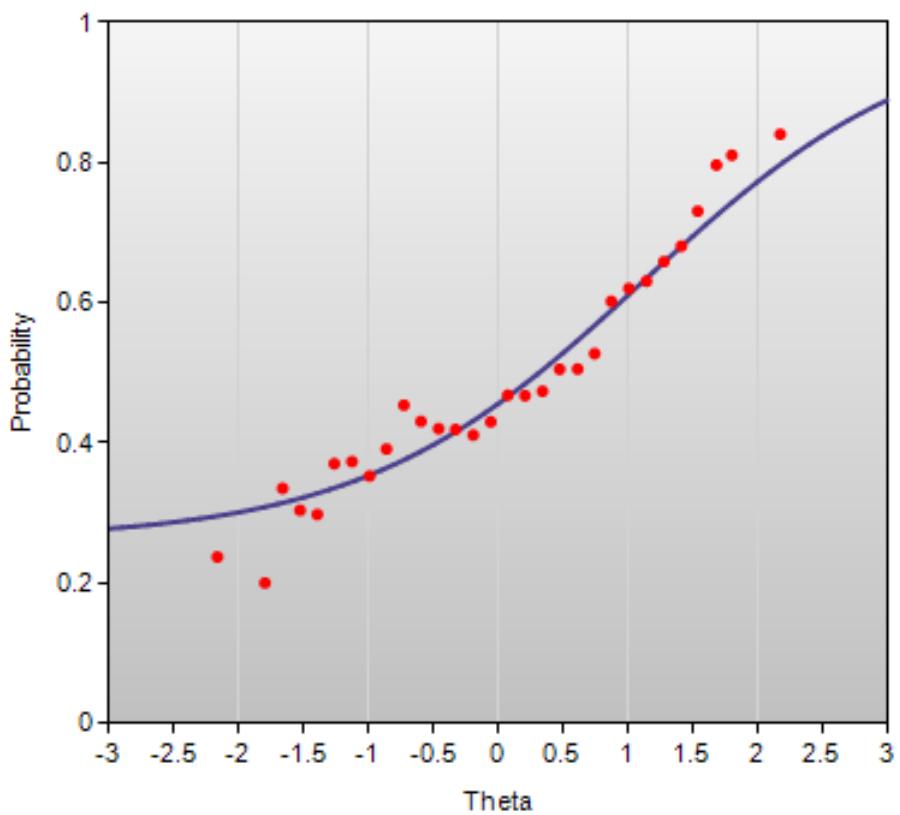
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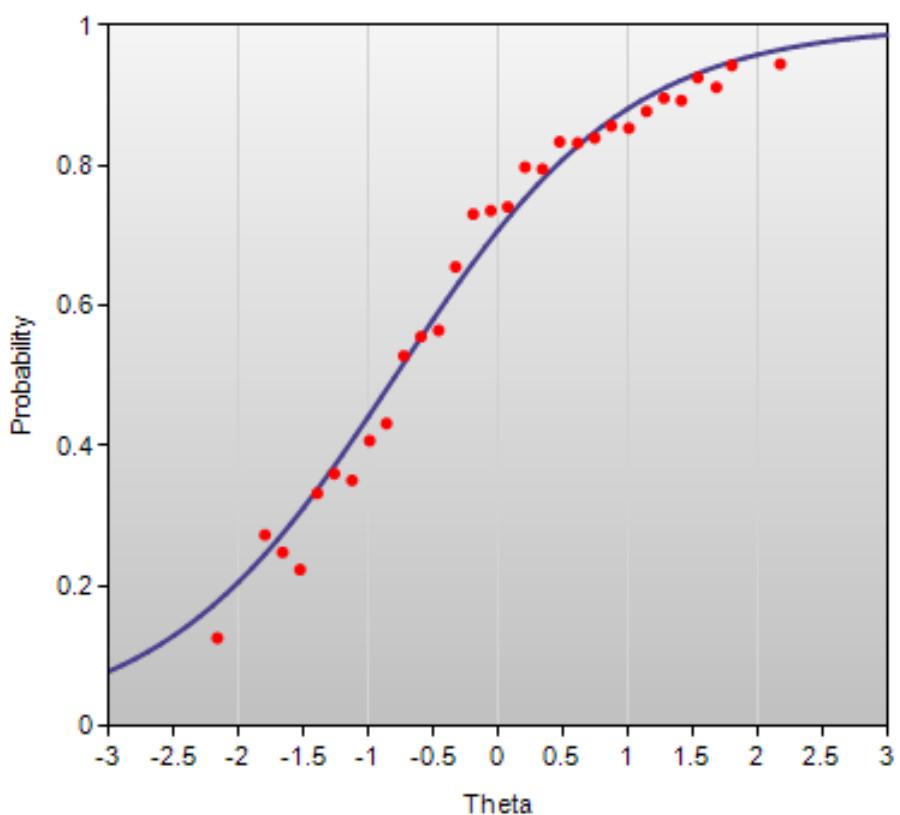
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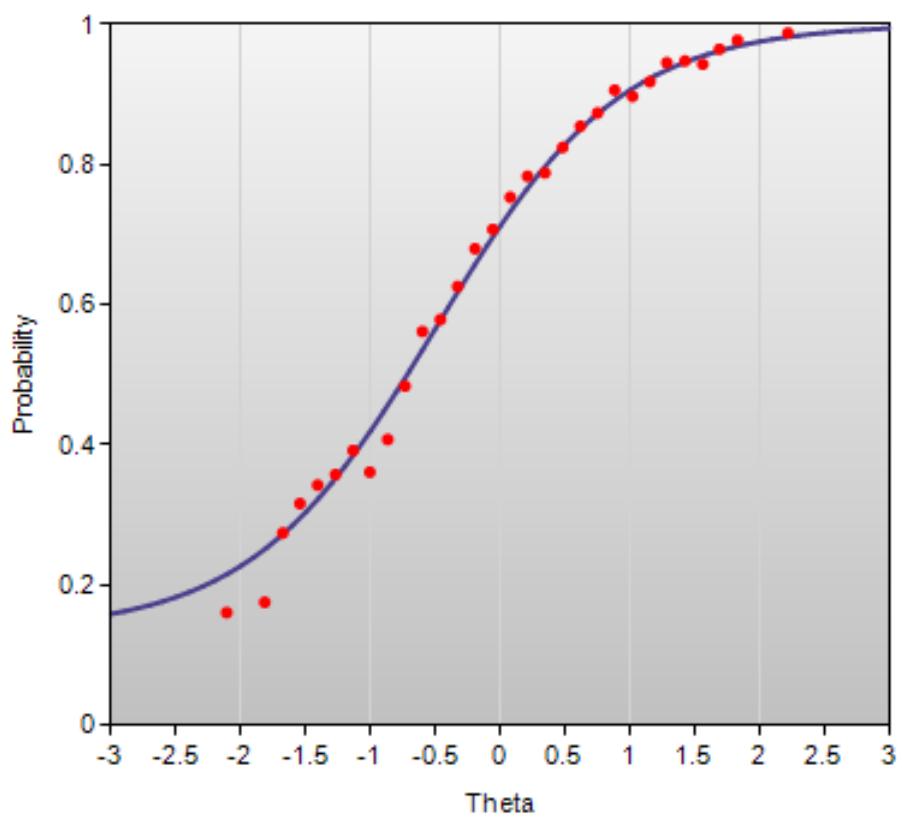
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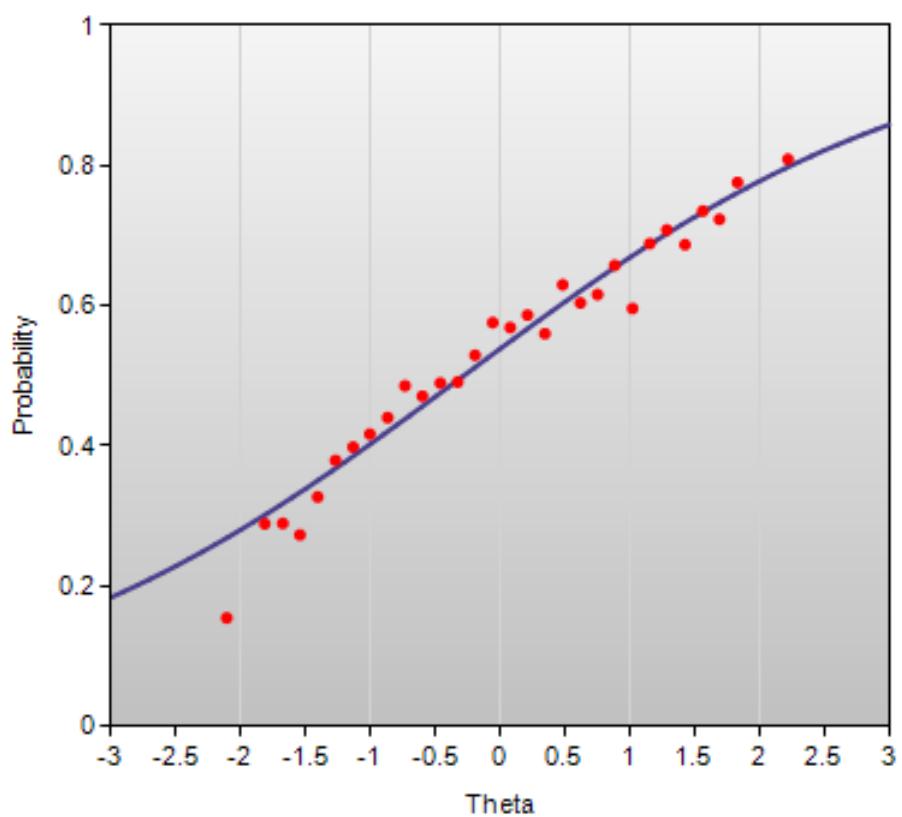
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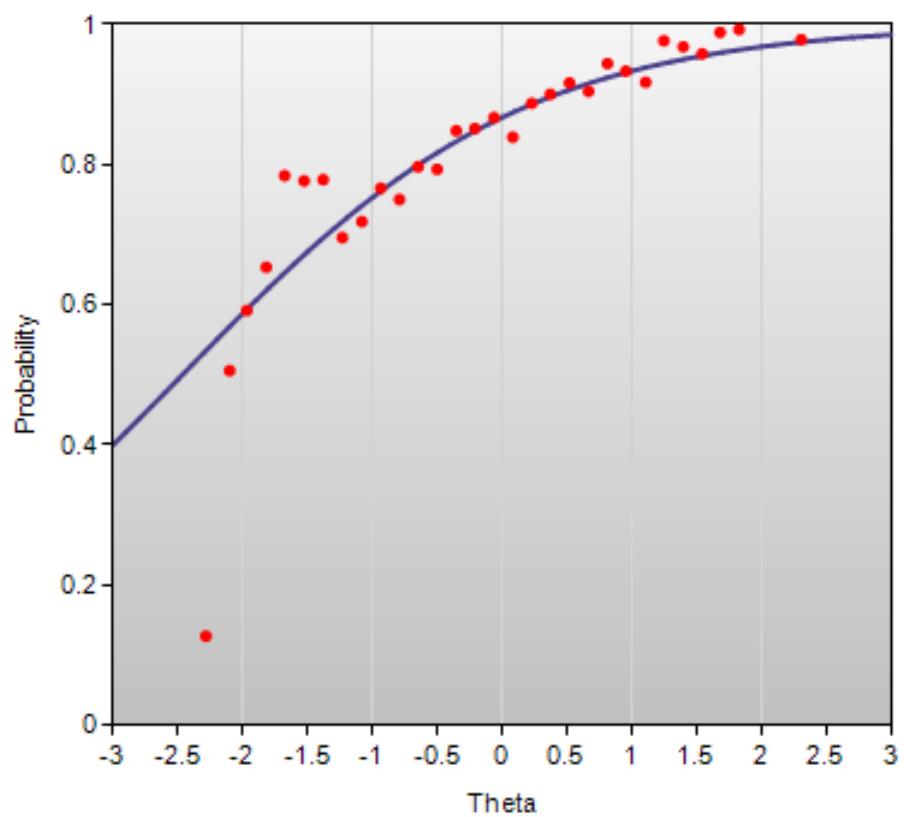
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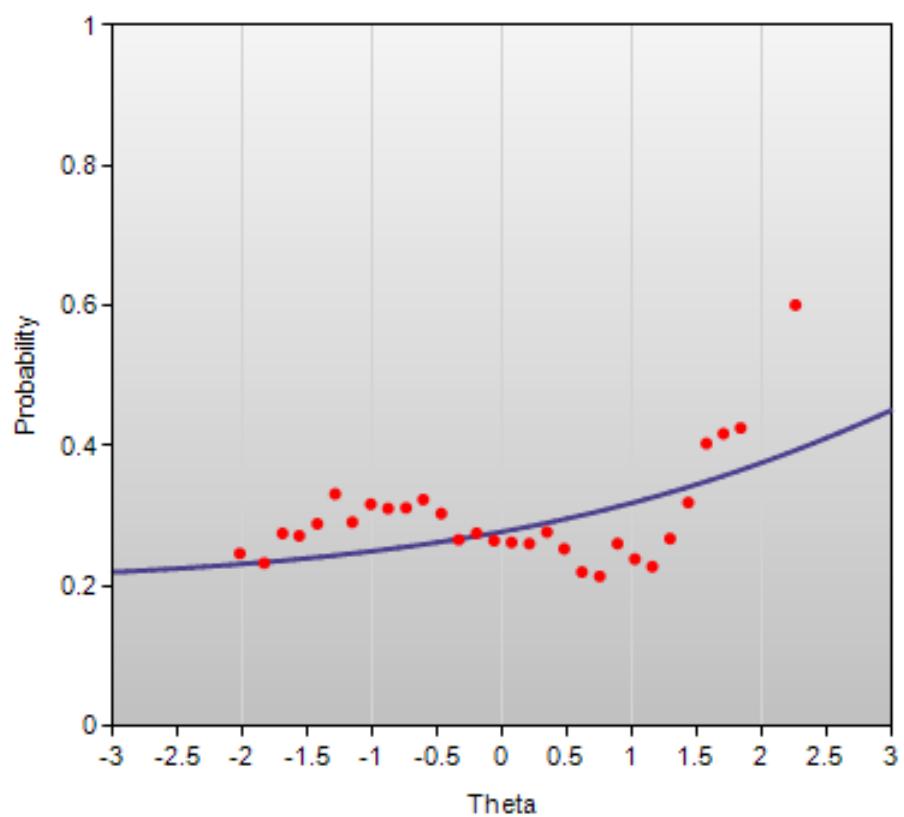
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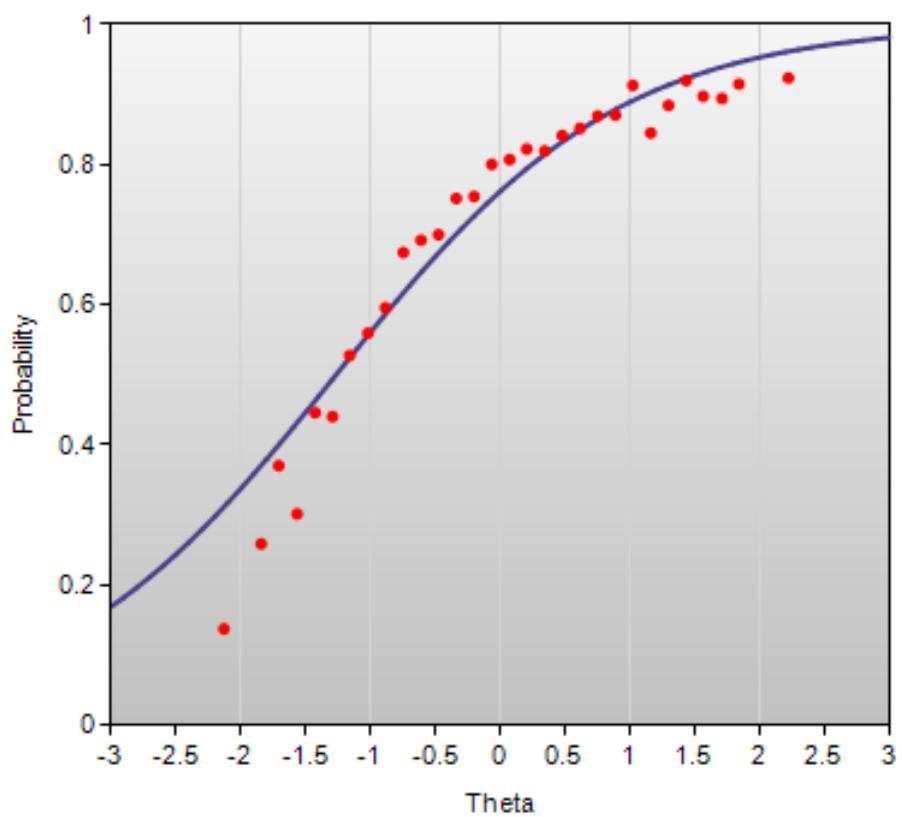
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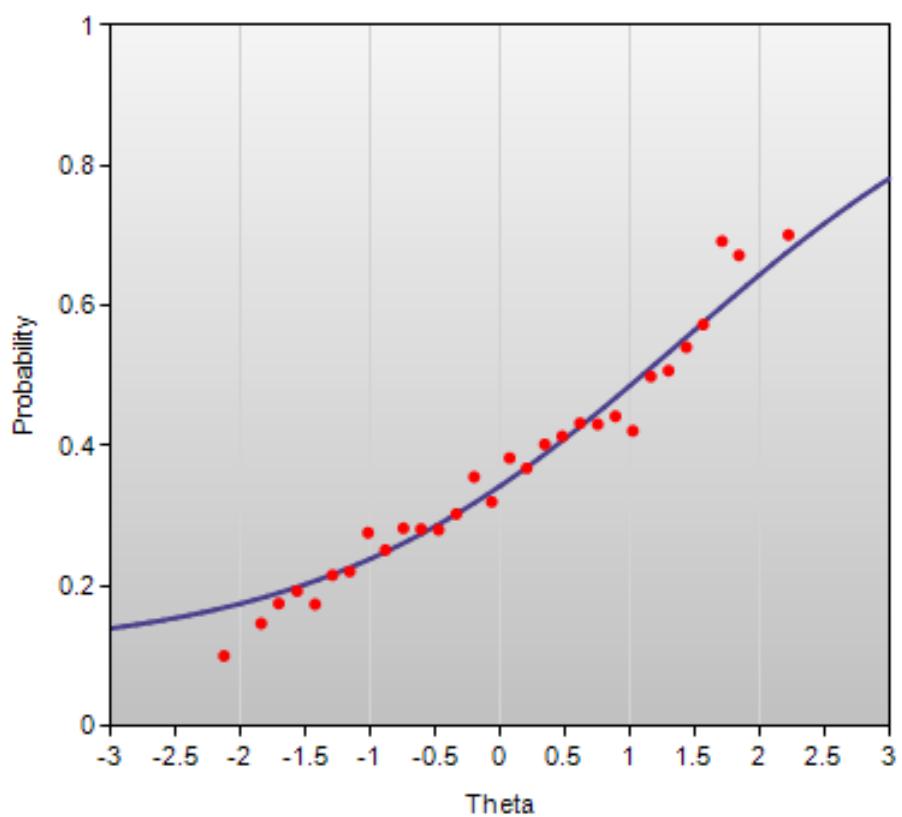
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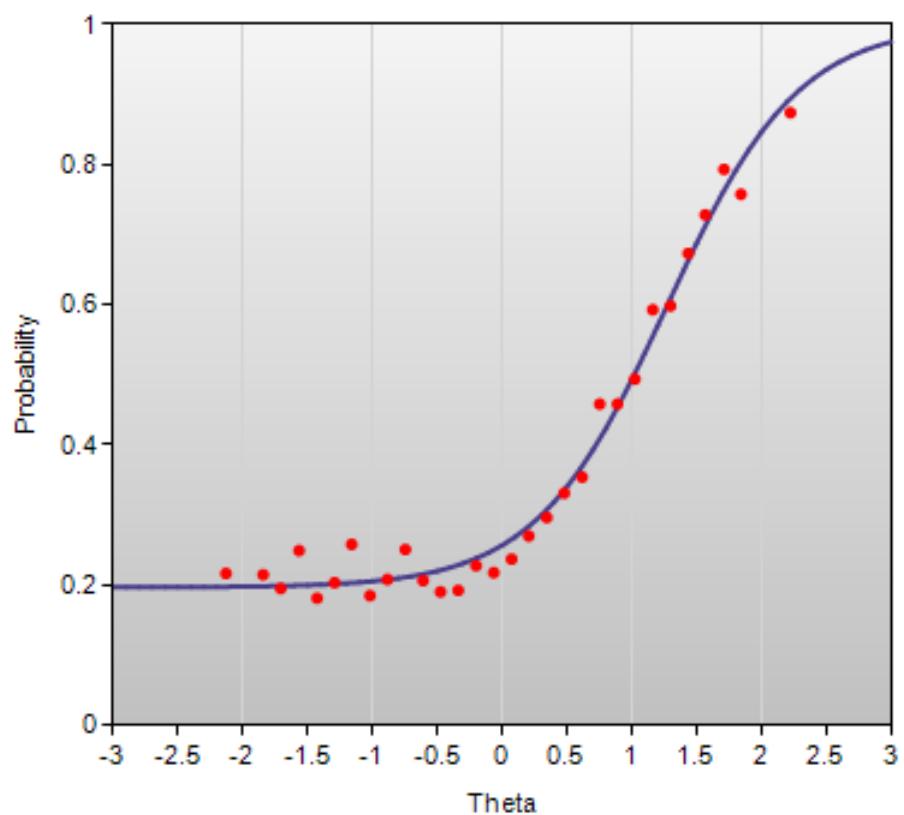
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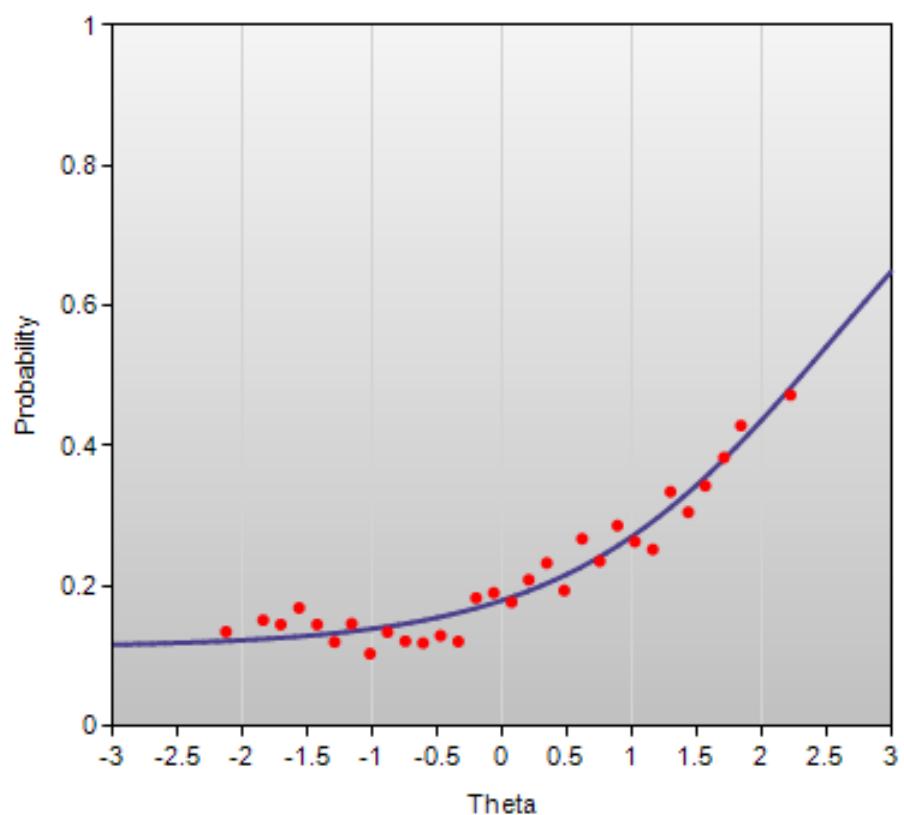
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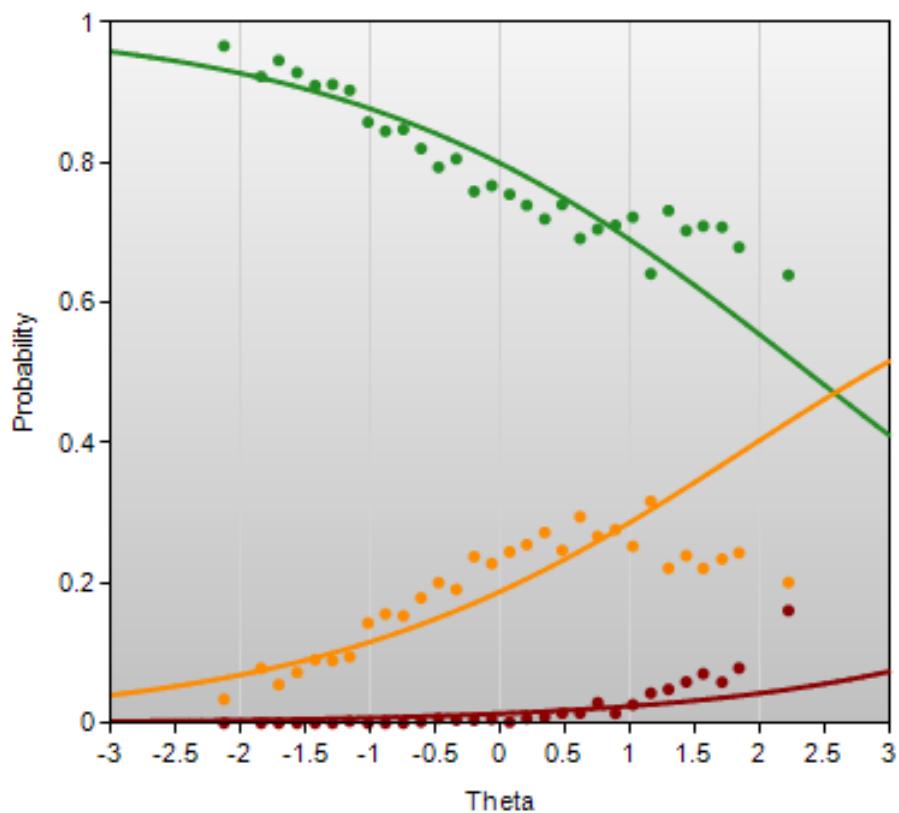
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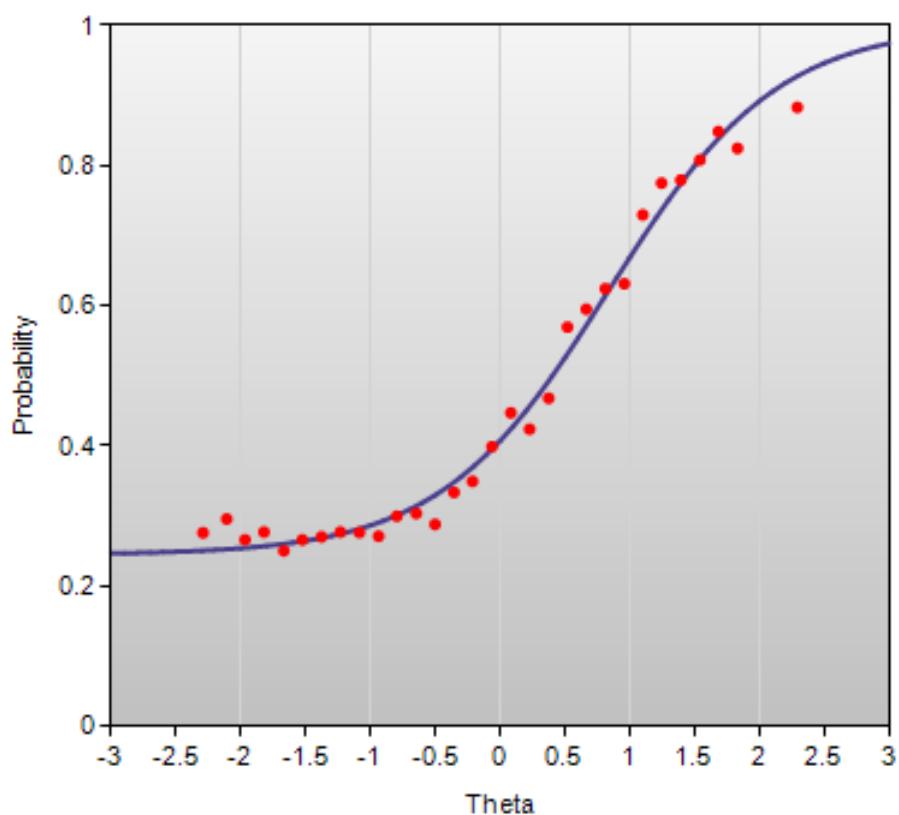
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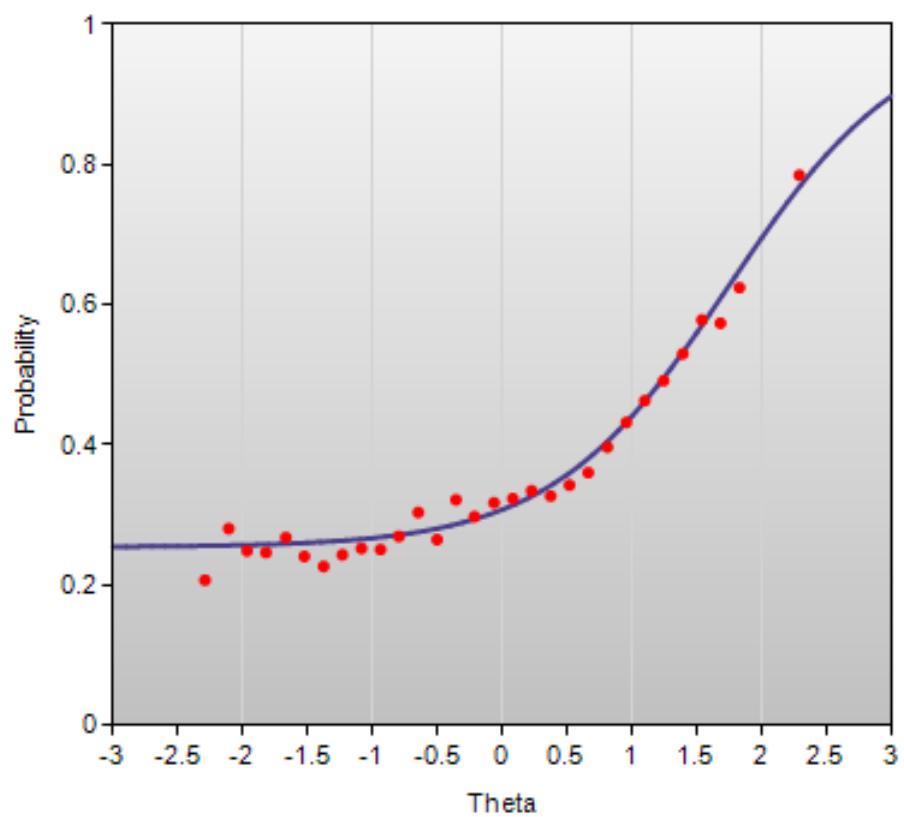
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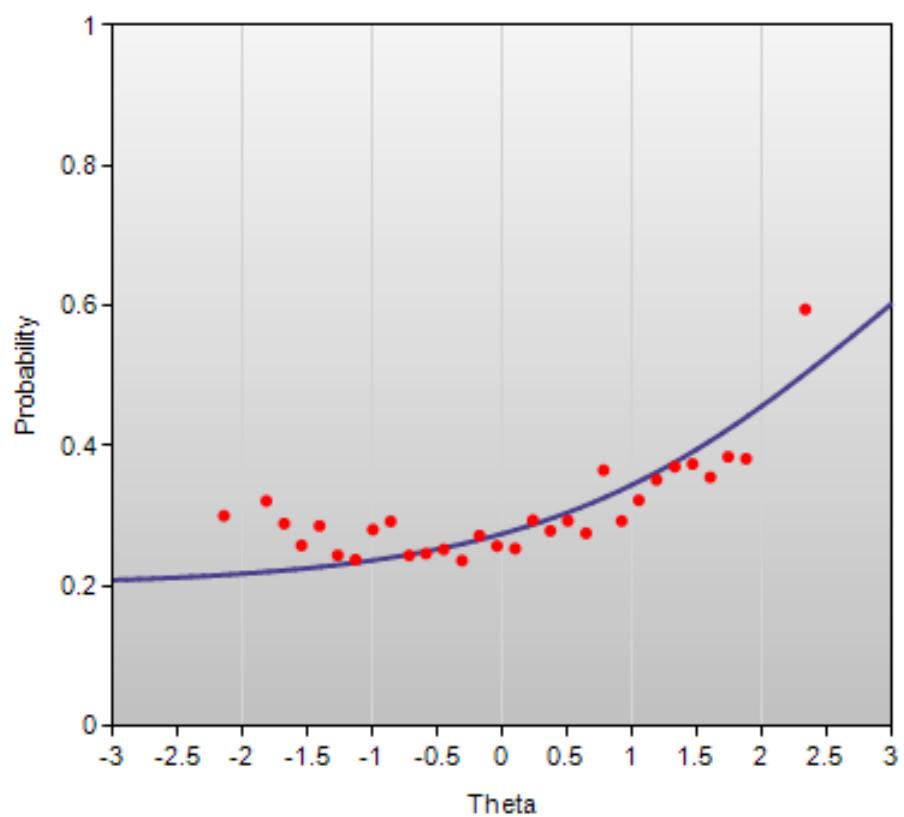
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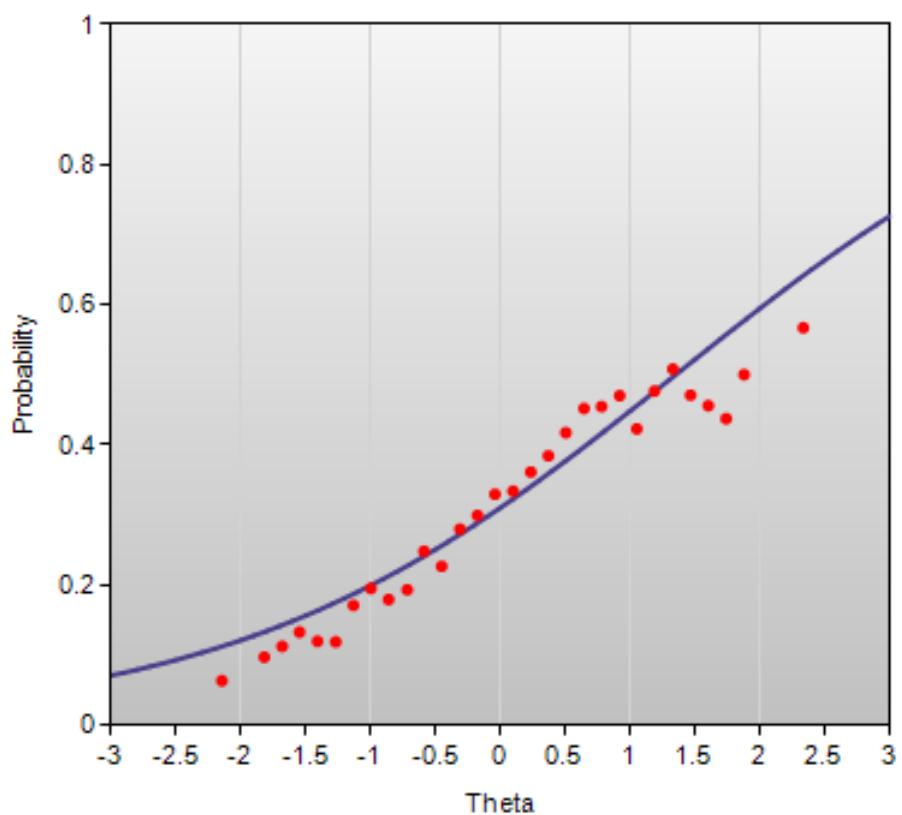
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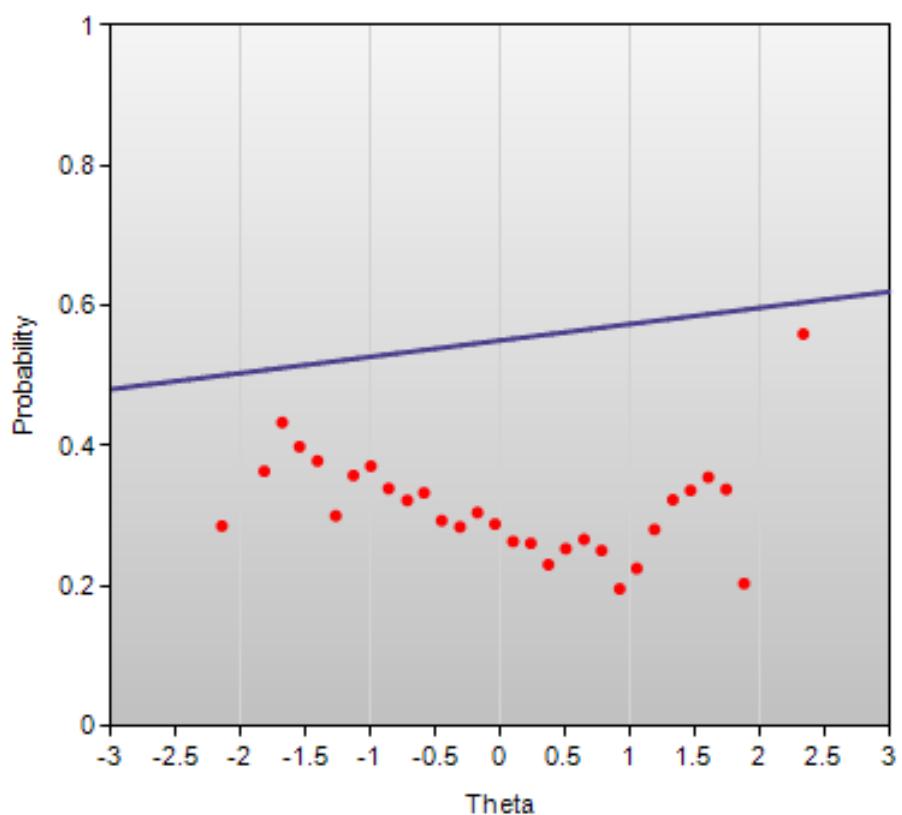
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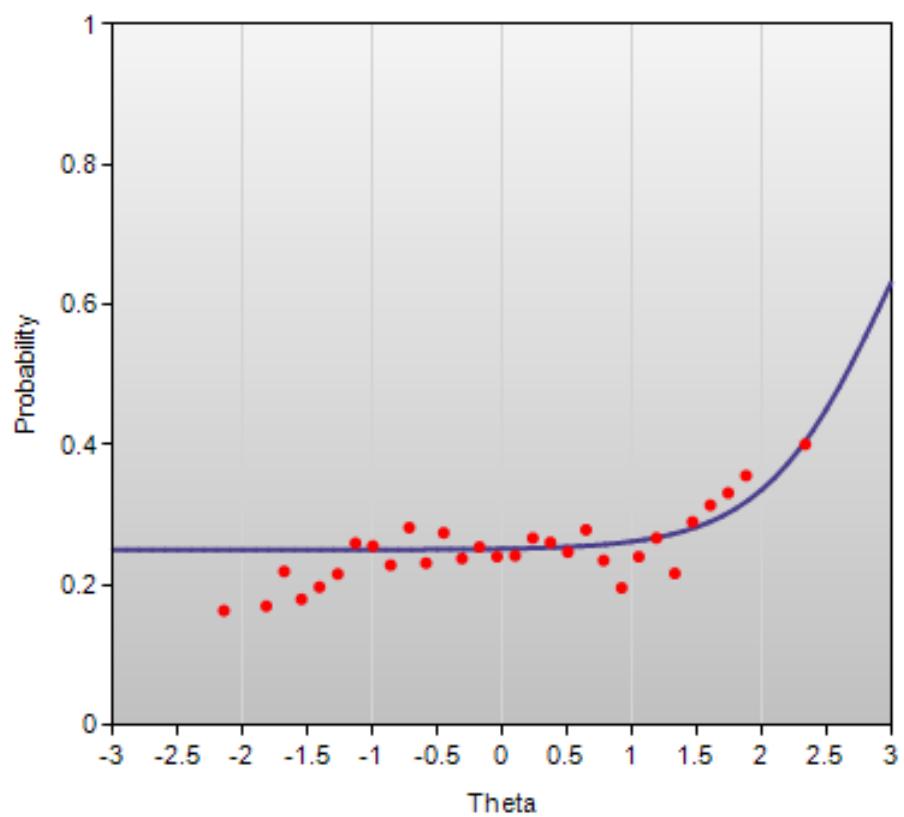
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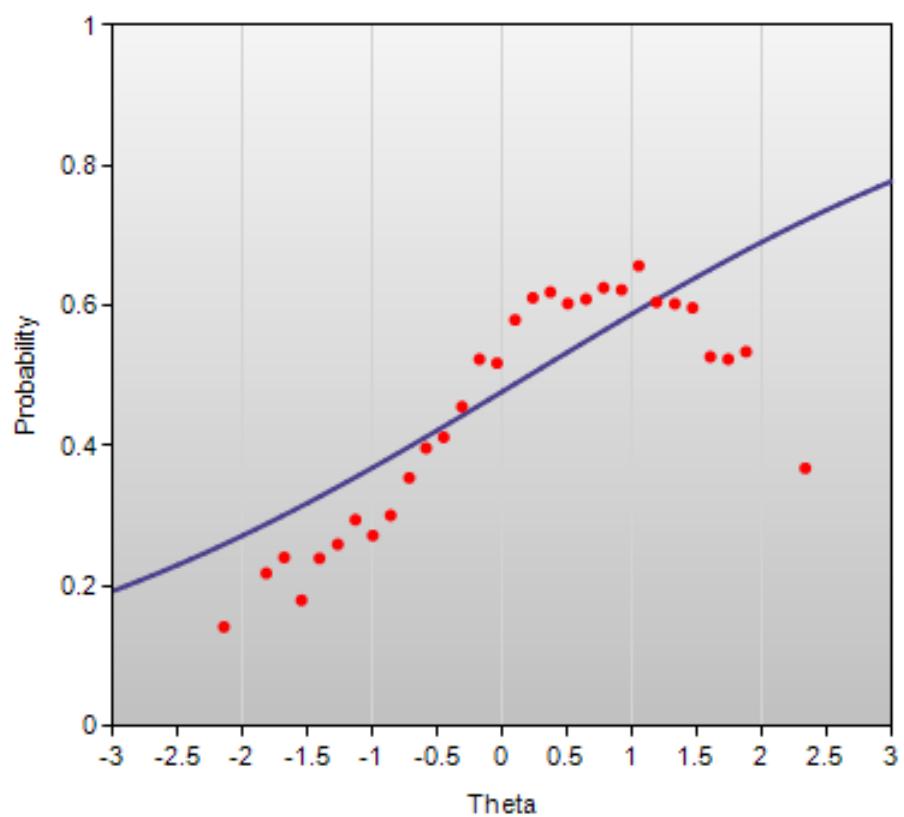
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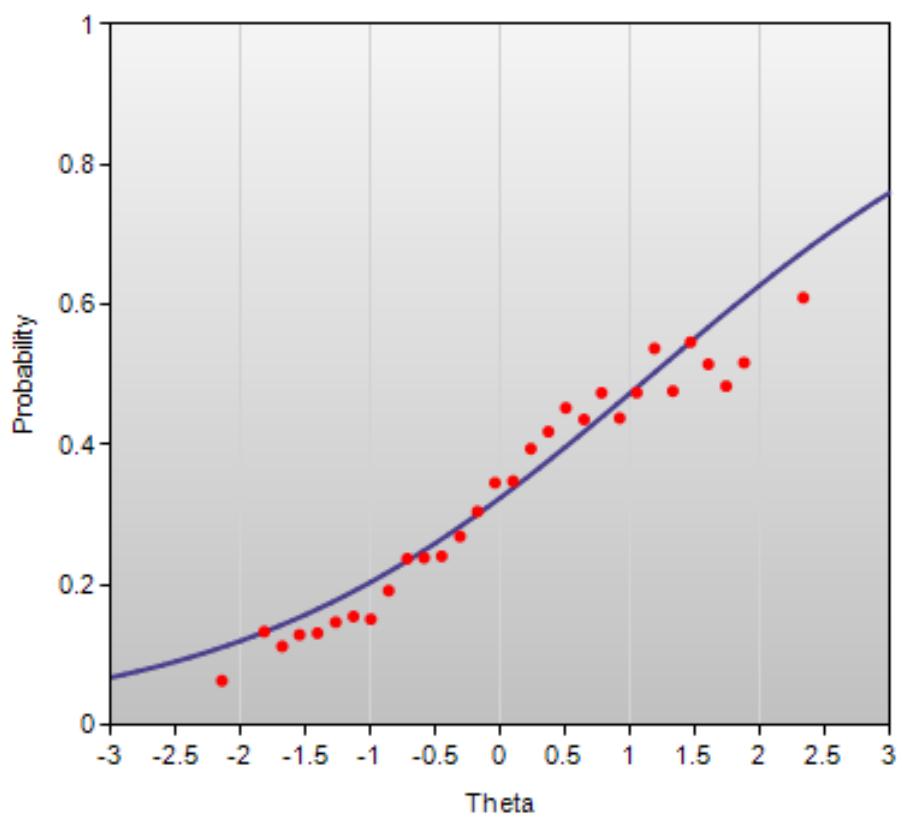
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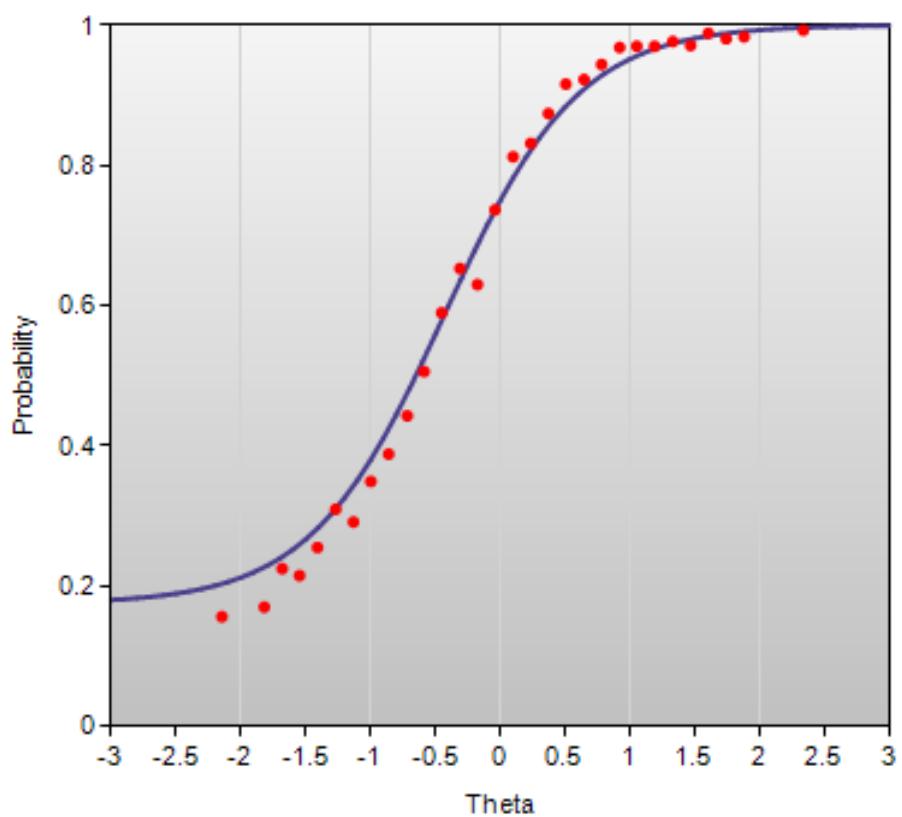
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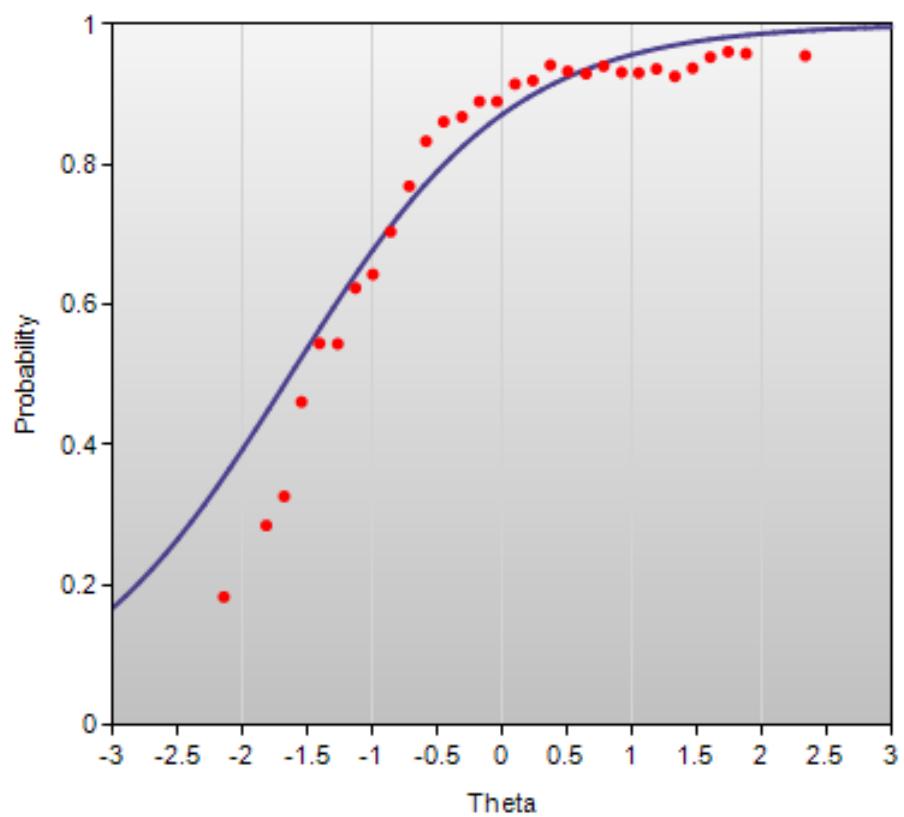
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Mathematics Grade 8: 412756



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